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The Effect of Identity on Risk-taking in Middle Adolescence: The Mediating Role of Positive Youth Development

Pimnapassara Hongjoy, Srinakharinwirot University, Thailand
Sittipong Wattananonsakul, Srinakharinwirot University, Thailand

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Abstract
This study aimed to examine how identity development and character from positive youth development perspective can reduce risk-taking in middle adolescence by investigating the direct effect of identity and character on risk-taking and the indirect effect of identity on risk-taking through character. Self-report questionnaires were used for data collection from 405 high school students ($M_{age} = 16.58$ years; $SD_{age} = 0.95$) attending public schools in Bangkok, Thailand. The Structural Equation Modeling (SEM) was operated to analyze the tested model. The results revealed that identity and character negatively influenced risk-taking. In addition, the association between identity and risk-taking was partially mediated by character. The overall goodness-of-fit statistical analysis represented that the tested model of risk-taking is a good fit with the empirical data. The implications for decreasing risk-taking in middle adolescence along with suggestions for future research are discussed.

Keywords: identity, risk-taking, character, positive youth development, middle adolescence
Introduction

Adolescence is recognized as a vulnerable period to participate in problems with risk-taking (Arnett, 1992). In accordance with statistics drawn from the smoking and drinking behavior survey conducted by the National Statistical Office of Thailand (NSO) in 2014, the data revealed that the starting age for both smoking and drinking in youths has significantly declined. The survey also found that the number of car and motorbike accidents caused by drunk driving occurred the most amongst adolescents (NSO, 2014). Moreover, a survey by Powwattana & Ramasoota (2008) found that 68.8% of 319 Thai female adolescents had sexual intercourse without using condoms. These reports indicated that such problems with risk-taking in Thai adolescents need an attention in order to be solved, especially for adolescents aged of 15 to 19 years (WHO, 2014; UNICEF, 2015) which can be defined as middle adolescence (Steinberg, 1996), since these problems have negative impacts not only on the health of adolescents but also their families and society as a whole (Jessor, 2014).

Risk-taking problems in adolescence is a topic that has attracted many researchers to investigate the factors that can diminish the propensity of adolescents to engage in risk-taking (e.g. Magar, Phillips, & Hosie, 2008; Dumas, Ellis, & Wolfe, 2012; Sun & Shek, 2012; Razali & Kliwer, 2015). Many studies adopted the Problem Behavior Theory (Jessor & Jessor, 1977) to comprehend risk-taking phenomena (e.g. Vazsonyi et al., 2008; Wattananonsakul & Tuicomepee, 2014). Relating to the previous research, it was found that developmental process factors in adolescence contributed to risk-taking problem reduction (Hatano, Sugimura, & Crocetti, 2016; Schwartz et al., 2015; Dumas et al., 2012; Sun & Shek, 2012; Jelicic, Bobek, Phelps, Lerner, & Lerner, 2007).

As Erikson (1968) proposed in the theory of psychosocial development, identity formation is a key developmental task that challenges every adolescent to accomplish. According to the results, identity formation can be classified into two poles; the successful one called identity achievement, and the other referred to as identity confusion. Furthermore, Marcia (1966) broadened Erikson’s concept of identity by proposing two identity processes consisting of exploration and commitment. Exploration is denoted as a self-active searching and questioning about identity choices relating to one’s life goals. Commitment refers to the certain decision making based on one’s own identity. The presence of both exploration and commitment signifies as a pathway to achieve identity task, whereas the absence of exploration and commitment during identity development implies to identity diffusion. That is to say, the consequences of identity development are likely to affect the personality and behavioral problems along with the well-being of individuals in adolescence and adulthood (Erikson, 1968; Kroger, 2000; Schwartz, Brent Donnellan, Ravert, Luyckx, & Zamboanga, 2012). Previous relevant research revealed that adolescents with high levels of identity development tended to involve lower risk-taking problems (Hatano et al., 2016; Dumas et al., 2012).

Apart from the aspect of identity, Positive Youth Development (PYD) is also the key developmental factor for thriving adolescents (Lerner et al., 2006). PYD is a perspective which believes in the inherent strengths in every adolescent. These strengths are the potential that contributes to positive changes in the cognitive, emotional, social and behavioral domains of adolescents (Lerner et al., 2005; Phelps,
Zimmerman, Warren, Jelicic, von Eye, & Lerner, 2009), resulting in healthy adolescents and adults in the future as well as reducing an emergence of risk-taking behaviors (Lerner, Von Eye, Lerner, & Lewin-Bizan, 2009). Previous research showed that PYD was negatively associated with risk-taking behaviors in adolescents (Sun & Shek, 2012; Jelicic et al., 2007).

One aspect of positive youth development which plays a role in the formation of a healthy personality and effects risk behaviors is “Character”, which can be defined as respect for societal and cultural rules, correct behaviors, morality, and integrity (Roth & Brooks-Gunn, 2003; Lerner et al., 2005). Past research found that character was negatively associated with risk-taking in adolescents (Geldhof, Bowers, Mueller, Napolitano, Callina, & Lerner, 2014; Sun & Shek, 2012; Jelicic et al., 2007). Additionally, some studies exposed a link between identity and character which established that adolescents with achieved identity are more likely to develop positive characters compared to confused identity adolescents (Crocetti, Erentait, & Zukauskiene, 2014; Padilla-Walker, Barry, Carroll, Madsen, & Nelson, 2008). In the same vein, Erikson (1968) noted that adolescents who can achieve identity development are inclined to acknowledge their own desires and behave in accordance with social norms. The literature regarding the connection between identity, character and risk-taking as mentioned above led to the question of whether or not the relationship between identity and risk-taking can be elaborated through character.

Based on the Problem Behavior Theory (Jessor & Jessor, 1977) and Erikson’s theory of psychosocial development (1968), the present study aimed to scrutinize whether or not character can serve as the mediator between the effect of identity on risk-taking by examining the direct effect of identity and character on risk-taking and the indirect effect of identity on risk-taking through character in order to clarify how the factors related to the adolescent developmental process contributing to the reduction of the risk-taking problems in middle adolescence.

**Method**

**Participants and procedure**

The participants consisted of 405 high school students (41% boys and 59% girls) in six public schools in Bangkok, Thailand. The age of participants ranged from 15 to 18 years ($M_{age} = 16.58$ years; $SD_{age} = 0.95$). This study required and obtained permission from the school principals to administer questionnaires during class time. The survey protocol was certified by the Ethical Review Committee for Research Involving Human Research Subjects, Srinakharinwirot University.

**Measures**

The variables in this study were measured by self-report questionnaires. All scales were originally developed in previous research and represented in English. For this study, the scales were translated into Thai and some content was adapted in order to be in line with Thai cultural context. The psychometric properties (e.g. item total correlation analyses, content validity and internal consistency reliability) were tested and validated before the administration of the survey. All measures demonstrated a satisfactory to a good level of reliability ($\alpha = .72 - .84$) (George & Mallery, 2003).
The information and details regarding the measurement of each variable in this study are presented below.

Risk-taking

Risk-taking was depicted as the intention and willingness of adolescents to take part in risk-taking behaviors including drinking, smoking, premarital sexual and reckless driving. To index intention to take risks, the items adapted from the Domain-specific Risk-attitude Scale (DOSPERT; Weber, Blais, & Betz, 2002) in the health domain were employed. The participants were asked to indicate their likelihood of intention to engage in any of these high risk behaviors during over the next six months. An example of items was “Consuming four or more servings of alcohol in a single party”. The response choices ranged from 1 (very unlikely to do) to 4 (very likely to do). To assess willingness to take risks, the scale was derived from Gerrard, Gibbons, Stock, Vande Lune, & Cleveland (2005) and Wattananonsakul, Suttiwan, & Iamsupasit (2010). This scale firstly introduced a risk-conductive situation such as “Suppose you were with a group of friends and some of them were smoking. There are some cigarettes there that you could have if you wanted”. Then, participants were asked to answer how willing they would be to take part. The items were one cigarette and 2-3 cigarettes. The response options ranged from 1 (not at all willing) to 4 (very willing).

Identity

Identity was measured by a concept of identity processes (identity exploration and identity commitment) in the domains of future occupation, field of study, personal values, religion, politics, family, friendships, dating and sex roles using the scale adapted from the Ego Identity Processing Questionnaire (EIPQ; Balistreri, Busch-Rossnagel, & Gesinger, 1995). All items were rated on a four-point Likert-type scale, ranging from 1 (not at all like me) to 4 (very much like me). Nine items measured identity exploration (e.g. “I have tried to learn about different occupational fields to find the best one for me”) and nine items measured identity commitment (e.g. “I am confident that the values I hold are right for me”).

Character

In order to measure character, the four-point Likert-type scale derived from the very short measure of the Five Cs of PYD (PYD-VSF; Geldhof et al., 2014) were used. The items on this scale represented social conscience, value diversity, personal values and conduct behavior, for example, “Respecting the values and beliefs of people who are of a different race or culture than I am”. The response format for these items ranged from 1 (not at all like me) to 4 (very much like me).

Data analysis

The data were analyzed using Structural Equation Modeling (SEM) to investigate direct and indirect effects of the tested model which consisted of latent constructs with several indicators. SEM was performed by using LISREL 8.72 software with maximum likelihood (ML) estimation (Jöreskog & Sörbom, 1996). The covariance matrix was computed as input. The related measurement errors were allowed. Assessing the overall fit of this model was determined by these criteria; the non-significant Chi-square
(Barrett, 2007), root mean square error of approximation (RMSEA) was not greater than .08 (MacCallum, Browne, & Sugawara, 1996), the comparative fit index (CFI) was greater than .95 (Hu & Bentler, 1999) including the relative Chi-square ($\chi^2$/df ratio) of less than 2.0 (Hooper, Coughlan, & Mullen, 2008).

**Results**

The means, standard deviations and correlation coefficients of all observed variables were analyzed and presented in Table 1. The results showed the significant relationships among all observed variables. To examine the hypothesized model of risk-taking, identity and character were defined as an exogenous variable and a mediator respectively. An initial model was estimated according to maximum likelihood method for estimating the path coefficients. Modification indices were used for modifying model to be a good fit for the data. For the final model, chi-square = 11.06, $df = 16$, $p = .81$, comparative fit index (CFI) = 1.00, root mean square error of approximation (RMSEA) = .000, goodness of fit (GFI) = .99 and adjusted goodness of fit (AGFI) = .98. Thus, all indices implied that the tested model of risk-taking was a good fit to the empirical data. The model was shown in Figure 1 with standardized coefficients. Moreover, identity and character explained 27.7 percent of the variance in risk-taking in middle adolescents.

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
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<th>6</th>
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<tbody>
<tr>
<td>1. Intention to take risks</td>
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<tr>
<td>2. Willingness to take risks</td>
<td>.62**</td>
<td>1.00</td>
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<td>3. Social conscience</td>
<td>-.20**</td>
<td>-.15**</td>
<td>1.00</td>
<td></td>
<td></td>
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<td></td>
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<td>4. Value diversity</td>
<td>-.26**</td>
<td>-.15**</td>
<td>.36**</td>
<td>1.00</td>
<td></td>
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<tr>
<td>5. Personal values</td>
<td>-.28**</td>
<td>-.24**</td>
<td>.34**</td>
<td>.30**</td>
<td>1.00</td>
<td></td>
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<td>6. Conduct behavior</td>
<td>-.33**</td>
<td>-.26**</td>
<td>.44**</td>
<td>.55**</td>
<td>.45**</td>
<td>1.00</td>
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<tr>
<td>7. Identity exploration</td>
<td>-.17**</td>
<td>-.18**</td>
<td>.16**</td>
<td>.13*</td>
<td>.20**</td>
<td>.17**</td>
<td>1.00</td>
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<tr>
<td>8. Identity commitment</td>
<td>-.33**</td>
<td>-.26**</td>
<td>.24**</td>
<td>.23**</td>
<td>.31**</td>
<td>.25**</td>
<td>.52**</td>
<td>1.00</td>
</tr>
</tbody>
</table>

*M* = 13.22, 17.17, 3.47, 3.34, 3.39, 3.45, 22.05, 25.67

**SD** = 3.74, 5.19, 0.77, 0.75, 0.74, 0.68, 3.80, 3.49

*p < .05, **p < .01

Table 1 Mean, standard deviation and correlation of observed variables

The model showed that identity had a significantly positive effect on character. However, both identity and character had significantly negative effects on risk-taking directly. Identity also influenced risk-taking indirectly through character. Therefore, character is partially mediated the relationship between identity and risk-taking (Little, Card, Bovaird, Preacher, & Crandall, 2007).
Note: Values are standardized coefficients. Chi-square = 11.06, df = 16, p = .81; root mean square error of approximation (RMSEA) = .000; comparative fit index (CFI) = 1.00; goodness of fit (GFI) = .99; adjusted goodness of fit (AGFI) = .98 (**p < .001)

Figure 1: Structural equation model of risk-taking in middle adolescence.

Conclusions and recommendations

The purposes of this study were to examine the effect of identity on risk-taking in middle adolescence directly and indirectly through character from a positive youth development perspective. The results revealed that identity significantly influenced risk-taking directly and indirectly through character which can also be described as the partial mediator between identity and risk-taking. In addition, the overall goodness-of-fit statistical analysis indicated that the hypothesized model of risk-taking was a good fit with the empirical data.

According to the results, the whole picture of the interrelation between identity, character, and risk-taking was supported by the psychosocial development theory (Erikson, 1968) together with the Problem Behavior Theory (Jessor & Jessor, 1977). Specifically, the psychosocial development theory describes that adolescents who can accomplish their identity tasks are more likely to behave in a positive way in line with social norms, which is consistent with a definition of character and, simultaneously, less likely to participate in risk-taking behaviors, compared to adolescents with confused identity. Moreover, identity and character are considered to be protective factors in a personality system that can mitigate risk-taking engagement in adolescents based on the Problem Behavior Theory.

Focusing on each pathway in the model of this study, the negative effect between identity and risk-taking is consistent with prior research (Hatano et al., 2016; Schwartz et al., 2015; Dumas et al., 2012), additionally, a negative association of character to risk-taking is also in line with preceding studies (Geldhof et al., 2014; Sun & Shek, 2012; Jelicic et al., 2007) which implied that both identity and character...
can reduce the likelihood of engaging in risk-taking. Besides, the positive relationship between identity and character is also parallel with previous studies (Crocetti et al., 2014; Padilla-Walker et al., 2008) which indicated that adolescents with more likelihood to achieve identity task possess a more positive character. Consequently, the results of this study suggested that when adolescents synthesized their identity more positively, the possibility of taking part in high risk behaviors tends to reduce, concurrently, a positive development in character is inclined to escalate. As a result, the positive character can also potentially decrease the chances of engaging in high risk behaviors.

This study may contribute to and have practical applications as it provides information that can be used to develop prevention programs for schools as well as communities in order to prevent risk-taking problems amongst middle adolescents. These findings suggested that schools and communities should promote identity in middle adolescents and help them achieve their successful identity tasks by creating contexts that encourage adolescents to explore their own competence by considering the influences that can affect the direction of their lives and then generating plans of action to address identified choices and challenges. As a consequence, they can define who they are and what they believe in prior to making a commitment regarding their identity. (Ferrer-Wreder, Lorente, Kurtines, Briones, Bussell, Berman, & Arrufat, 2002). The success of identity development will lead to the reduction of the likelihood of risk-taking problems, including increasing the positive development of their character indirectly.

It is worth noting that the significance of identity development and risk-taking problems was not solely limited only in middle adolescence but also in early adolescence, late adolescence and early adulthood (Erikson, 1968; Jessor, 2014). In order to understand the thorough concept, it is suggested that future studies should clarify the pattern of relationships between identity, character and risk-taking through the various stages of adolescence as well as early adulthood.

In conclusion, the current study provided a further information for adolescent literature by showing the mechanism of relationships between identity, character and risk-taking in middle adolescence which established that character based on a concept of positive youth development is the partial mediator between identity and risk-taking. Furthermore, the present study added supportive evidence on the developmental process factors that can potentially reduce risk-taking problems, as well as underlying the importance of identity development in middle adolescence.

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References


**Contact email:** pnpsara.h@gmail.com
**Development of Positive Youth Development Indicators in The Context of Thai Adolescent**

Kaninthon Lohkum, Srinakharinwirot University, Thailand
Sittipong Wattananonsakul, Srinakharinwirot University, Thailand

**Abstract**
Research on Positive Youth Development (PYD) has been widely studied, based on the Positive Youth Development model (Lerner, 2005). The objectives of this study were to develop and validate a scale for measuring the positive youth development of Thai adolescent. There was a full form for the measurement of grades 10 to 12. The data were collected from 550 high school students, ranging in age from 15 to 18 years ($M=16.62$, $SD=0.967$), in Bangkok, Thailand. The PYD scale was developed through a two-phase process. The first phase involved the generation of an item pool and the second phase was a validation of the psychometric properties of the PYD scale in the Thai version.

Factor analysis was employed to study the dimensions of PYD. Factor analysis demonstrated that items loaded on 3 specific dimensions consists of Confidence, Connection and Character. The results showed that a three-factor model of PYD had a better overall fit to the empirical data. These findings were consistent with previous research in terms of the indicators. These indicators should be utilized in further developmental strengthening programs for students. The limitation of this study and suggestion for future research are discussed.

Keywords: Positive Youth Development, development indicator, measurement scales, Thai adolescent
Introduction

Since its inception over a century ago, the scientific study of adolescence has largely been framed by a “deficit perspective” in which the second decade of life was considered a period of “storm and stress” (Hall, 1940), developmental disturbance (Freud, 1969), or crisis (Erikson, 1968). From this perspective adolescents were problems to be managed (Roth and Brooks-Gunn, 2003), and if there was to be positive development during this period of life, it involved the absence or the reduction of problems. The pervasive influence of the “deficit perspective” on research aims, policy, and practice is reflected in the prevalence of risk measurement and problematic behaviors that are most often collected by researchers, programs and service organizations. It appears that it is much easier to determine what youth should avoid (violence, drugs) or not be marked by mental health problems than to agree on the characteristics and experiences that are either indicators of thriving or anything else that could enhance the lives of adolescents (Moore et al., 2004).

The problems and deficits among young people and the positive youth development (PYD) perspective was an innovative approach to adolescent development that emerged over the last 20 years. The PYD perspective moves beyond the negative, deficit view of youth that dominated developmental science, psychology, education, sociology, public health, and other fields through the twentieth century and towards a view of the strengths of youth and the positive qualities and outcomes that the researcher the wish youth would develop. The PYD has been conceptualized in many ways, and several theoretical frameworks have been posited over the past few decades. The important frame work of PYD was the developmental systems theory which focused on the plasticity of development (Lerner, 2004). The PYD model consist of five factors (5Cs), competence, confidence, connection, character, and caring (Lerner et al., 2005). As these models become more popular with individuals working to enhance the positive growth of young people in homes, schools and youth-serving organizations. However, in Thai culture, there were different social contexts. Therefore, the constructs of the PYD indicators might be different from the model proposed by Lerner (2005)

The objectives of this study were to develop and explore indicators of positive youth development in Thai adolescences. The conceptual framework was based on PYD model of Lerner (2005)

Method

Participants & Procedure

The participants consisted of 550 high school students in Bangkok Thailand, ranging in age from 15 to 18 years \((M = 16.62, SD = 0.967)\). It was 47.6% male and 52.4% female. The PYD scale was developed through a two-phase process and the third phase was factor analysis which can be described as follows.

The first phase developed the definition of PYD in Thai culture context by reviewing literatures and interviewing adolescent experts. Then, the synthesized definition of PYD was employed to generate an item pool. To finish this phase, the expert of
adolescence checked all of the items and commented by regarding IOC procedure. The PYD definition was presented in Table 1.

The second phase was to validate the psychometric properties of the Thai version of the PYD scale. After correction in first phase, the PYD scale was validated by item discrimination and reliability. The statistical analysis showed that 66 items on the PYD scale presented the good psychometric properties (CITC = .32 - .73, Cronbach’s alpha coefficient = .967).

The final phase was Exploratory Factor Analysis that aims to analyze PYD indicators.

This study was certified by the Ethical Review Committee for Research Involving Human Research Subjects, Srinakharinwirot University.

Measurement

The participants were asked to indicate the level of truth with each statement on a 4-point Likert-type scale ranging from 1 - “not really true” to 4 - “really true”. The participants who got higher score mean higher level of PYD. All scales were developed in Thai and tested the psychometric properties (e.g. item analysis, content testing, construct validity and reliability) before collecting data.

Table 1 Definitions of the Positive Youth Development 5Cs model

<table>
<thead>
<tr>
<th>Factor (Cs)</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competence</td>
<td>An action in domain specific areas including social academic and physical competence: Social competence pertains to interpersonal skills, academic competence pertains to cognitive abilities including school grades and attendance and physical competence pertains to work habits sports and activities.</td>
</tr>
<tr>
<td>Confidence</td>
<td>An internal sense of overall positivity pertaining to self-worth, positive identity and physical appearance.</td>
</tr>
<tr>
<td>Connection</td>
<td>Positive bonds with people and institutions that are reflected in bidirectional exchanges between the individual and peers, family, school and community in which both parties contribute to the relationship.</td>
</tr>
<tr>
<td>Character</td>
<td>Respect for societal and cultural rules, possession of standards for correct behaviors, a sense of right and wrong, morality, and integrity</td>
</tr>
<tr>
<td>Caring</td>
<td>A sense of sympathy and empathy for others; to understand a situation, to be concerned and to share suffering.</td>
</tr>
</tbody>
</table>

Data analysis

The data (n = 550) were analyzed for descriptive statistics and correlations with the demographic variables and variables in the conceptual framework. Following data collection, they were analyzed by SPSS statistics program.

The factor analysis was an Exploratory Factor analysis by the principal component method and orthogonal rotation with varimax technique. The criteria of data for factor
The item discrimination and reliability of the PYD scale were divided in 5 factors following the conceptual framework presented in Table 2.

Table 2 Item discrimination and reliability of the PYD scale

<table>
<thead>
<tr>
<th>Factor (items)</th>
<th>CITC (r)</th>
<th>Cronbach’s Alpha coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competence (12)</td>
<td>.340 .618</td>
<td>.843</td>
</tr>
<tr>
<td>Confidence (12)</td>
<td>.505 .720</td>
<td>.898</td>
</tr>
<tr>
<td>Connection (16)</td>
<td>.380 .651</td>
<td>.878</td>
</tr>
<tr>
<td>Character (16)</td>
<td>.535 .759</td>
<td>.940</td>
</tr>
<tr>
<td>Caring (10)</td>
<td>.655 .793</td>
<td>.928</td>
</tr>
</tbody>
</table>

All data collected for statistical analysis were appropriate with the conditions of factor analysis (KMO = .891, Chi-square = 2320.351). Construct validity of PYD model by Exploratory Factor Analysis demonstrated that items loaded on 3 specific dimensions consist of character, confidence and connection as presented in Table 3-4.

Table 3 Rotation Sums of Squared Loadings

<table>
<thead>
<tr>
<th>Factor</th>
<th>Eigenvalues</th>
<th>% of Variance</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2.905</td>
<td>22.343</td>
<td>22.343</td>
</tr>
<tr>
<td>2</td>
<td>2.191</td>
<td>16.856</td>
<td>39.198</td>
</tr>
<tr>
<td>3</td>
<td>2.176</td>
<td>16.742</td>
<td>55.940</td>
</tr>
</tbody>
</table>

KMO = .891, Bartlett’s test = .000

Table 4 Rotation component matrix

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Factor Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fac_1</td>
</tr>
<tr>
<td>1. Social conscience</td>
<td>.795</td>
</tr>
<tr>
<td>2. Values diversity</td>
<td>.783</td>
</tr>
<tr>
<td>3. Caring</td>
<td>.744</td>
</tr>
<tr>
<td>4. Morality</td>
<td>.752</td>
</tr>
<tr>
<td>5. Academic competence</td>
<td>.165</td>
</tr>
<tr>
<td>6. Physical competence</td>
<td>.055</td>
</tr>
<tr>
<td>7. Physical appearance</td>
<td>.084</td>
</tr>
<tr>
<td>8. Self-esteem</td>
<td>.455</td>
</tr>
<tr>
<td>9. Social competence</td>
<td>.248</td>
</tr>
<tr>
<td>10. connection to Neighborhood</td>
<td>.090</td>
</tr>
<tr>
<td>11. connection to Peer</td>
<td>.306</td>
</tr>
<tr>
<td>12. connection to School</td>
<td>.221</td>
</tr>
<tr>
<td>13. connection to Family</td>
<td>.194</td>
</tr>
</tbody>
</table>

Note: Fac_1 = Character, Fac_2 = Confidence, Fac_3 = Connection
The eigenvalues of the first factor (Character) was 2.905 (variance = 22.343%) and the factor loading was between .795 to .752. The eigenvalues of the second factor (Confidence) was 2.191 (variance = 16.856%) and the factor loading was between .715 to .469. The eigenvalues of the third factor (Connection) was 2.176 (variance = 16.742%) and the factor loading was between .788 to .480.

**Conclusion and Discussion**

The results of this study, the Thai Positive Youth Development scales, showed that there was a good psychometric property (CITC = .32 - .73, Cronbach’s alpha coefficient = .967), and appropriate in the context of Thai adolescents. Moreover, this scale evaluate the classification of adolescents for eligibility for a promotional program. The exploratory factor analysis showed that Positive Youth Development indicators in the context of Thai adolescents were comprised of 3 factors from 13 indicators. This included the following: 1) Character, which consisted of 4 indicators (social conscience, values diversity, caring and morality); 2) Confidence, which consisted of 5 indicators (academic competence, physical competence, physical appearance, self-esteem and social competence); and 3) Connection, which consisted of 4 indicators (neighborhood, peer, school and family). As a result, the 3Cs (Character, Confidence and Connection) can be described by the theory of developmental contextualism, in which person can develop behaviors by interaction with an ecological model consisting of individuals, society and culture (Lerner, 2005). The 3 factors of the PYD model in the context of Thai adolescence were consistent with the primarily 3C model of Lerner (Baker, J. et al., 2014). In addition, this model was also consistent with previous research about the good characters of Thai adolescents, with many indicators. Some indicators didn’t appears in this research because they were variables for specific purposes in each research. The Thai PYD model was different from the PYD 5Cs model at present (Lerner, 2005). The previous research showed that the 5Cs model divided Competence from Confidence and Caring from Character (Geldhof et al., 2014; Bowers et al., 2010; Lerner et al., 2005). The Positive Youth Development scale for Thai adolescents has already established as a good and valid measurement. This scale could be utilized as a measurement to classify a level of PYD in adolescences before and after the program in youths.

**Limitation and further study**

The limitations of this study included the participants’ range of age as the participants were in middle adolescence. The wide range of adolescent population might be affect to some indicators in factor analysis. Therefore, the future studies should enlarge the population and using confirmatory factor analysis to ensure the construction of the Thai PYD model with empirical data. The PYD indicators which found in this study was conducive to develop in to a programs for promoting strengths in youths.

**Acknowledgements**

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Reference


**Contact email**: kaninthorn@gmail.com
Causal Relationship Model of Organizational Culture Performance: The Study of Mediating Role of Organizational Trust and Organizational Commitment

Suppawat Khuthanapong, Srinakharinwirot University, Thailand.
Sittipong Wattananonsakul, Srinakharinwirot University, Thailand

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Abstract
The available literature on organizational behavior agrees that perceived organizational support (POS) is very significant in influencing the behavior and attitudes of people at the workplace. There is, however, paucity in studies focusing on the role of the mental outlook of an individual in shaping their attitude and behavior precisely so among the Thai populace. In light of this, this study seeks to fill the gap by examining the role of POS in the creation of Organizational Culture Performance (OCP). Giving reference to the conceptualization of organizational commitment (OC) and organizational trust (OT) characterize factors that are personal with the mediator variable being the organization. From this vein, the study tests the intermediating role of organizational commitment and organizational trust in relationship mentioned before. A questionnaire based survey (N = 400) was conducted among employees within the real estate business in Bangkok. The subjects surveyed were 74% female and 26% male. The findings of the study indicated that the employed causal model was an excellent match for the empirical data. There was no direct association between POS and OCP. However, there was an indirect association of OCP via OT and OC. The relationship was stronger when POS was more associated on OCB via OC. Discussions of the study included the implications from both a theoretical and practical approach. Suggestions for future studies were also made.

Keywords: Organizational Culture Performance, Organizational Trust, Organizational Commitment, Perceived Organizational Support
**Introduction**

Employees are often provided with different organizational inputs by the management that include components that are both tangible and intangible. The tangible components include rewards and pay while the intangible components include support, justice to mention but a few. The perception of employees on the aforementioned components varies due to individual differences and inherent intangibility. According to Ng and Sorensen (2008) existent literature argues that the development of attitudes and behaviors at the workplace is heavily influenced by the perception on organizational support. As such, the way something is perceived is just as important as what is perceived.

Borman (2004) noted that there are extensive studies focusing on industrial and organizational psychology given that job performance aligns to the very significant goals of an institution. In addition job performance is associates to the objectives of the firm besides individual goals. Job performance is likened to potential performance of the individual workers in an organization. It further serves as the symbol of ability to execute allocated duties and responsibilities (Campbell, 1990).

Upon conducting a review on theoretical perspectives Albanese (1981) recommended the Job Performance Behavior model. This model asserts that causal factor affected the behavior of employee performance at the individual and institutional level. The individual factors include skills, attitudes, knowledge as well as values whilst the institutional factors include relationships with supervisors, colleagues and other organizations.

The findings of a systematic review indicated that perceived organizational support which is a situational factor variable is extensively studied and found to affect job performance. Shirkoohi (2014) concisely stated that organizational support has a major effect on heightening of performance. Further, organizational support is associated with heightened organizational commitment as well as enhanced job satisfaction. There exists a positive association between POS and performance of jobs. Bakiev (2013) found out that people were able to heighten their performance besides be more committed to the organization if they possessed organizational trust. This was based on a study sampling police officers.

Essentially, this article seeks to establish the association of perceived organizational support with Organizational Culture Performance with the mediating variables being Organizational commitment and organizational trust within the Thailand. This study will add another context in literature besides investigate the boundary circumstances to abovementioned associations.

**Methods**

**Participants and Procedure**

The study population entailed 400 employees within the real estate business in Thailand. The questionnaire survey was translated to Thai while some sections were developed by the researcher with a view to make it context specific. In order to ensure reliability and validity, the survey went through internal consistency analysis as well.
as item correlation analysis. Certification of the study in regard to adhering to human research ethics was done by the Strategic Wisdom and Research Institute, Srinakharinwirot University, Thailand.

**Measure**

The survey questionnaire utilized a five point Likert Scale for each item under study. “Strongly disagree” was 1 while “Strongly agree” was no 5. The respondents of the study 67 items under study to respond to in the questionnaire. Aspects of reliability were ensured by ascertaining that the measurement result had Cronbach alphas ranging from .895 and .948 lowest and highest respectively.

**Organizational Culture Performance**

The were 25 items in the questionnaire that focused on organizational culture and more precisely evaluated the level of individual performance and behavior as articulated in the Denison organizational culture survey (Denison, 2000). The researcher also adopted the concept of job performance as articulated by Albanese (1981), the researcher also used a self-report with five dimensions that were as indicated below 1) attention to detail 2) service mind 3) think outside the box 4) customer centric and 5) goal driven. The aforementioned were deemed essential in assess the performance behavior of employees against the direction provided by the company in respect to strategic planning and achievement. .948 was the alpha value.

**Organizational Commitment**

The researcher utilized 24 items to measure the organization commitment and particularly adopted the “organizational commitment questionnaire” (OCQ: Meyer and Allen, 2001). Essentially, this sought to evaluate the commitment of employees to the organization. Normative commitment, affective and continuance are the three features of three dimensional model recommended by (Meyer & Allen, 2001). The dimensions focus on the obligations the employees feel they have to the organization, the perceived economic value hence the continued membership and emotional attachment towards the firm. Drawing from the operationalization of the three dimensional model the sustained commitment to the organization is largely dependent on the availability of openings for alternative jobs. Ultimately, the questionnaire sought to evaluate the employees level of commitment through assessing the behavior, belief and value of the firm. .944 was the alpha value in this regard.

**Organizational Trust**

The researcher employed 12 items to measure organizational trust and more precisely Cumming and Bromiley’s (1996) organizational trust inventory (OTI). However, the researcher customized the model by deleting item 1 given that it was not relevant to the context under study. Cook and Wall (1980) asserted that organizational trust is a significant factor that aids in the determination of the firm’s long term stability. To this end, long term stability is ensured when employees have a long-lasting and positive association with the firm as well as their colleagues. Consequently, Avram and Cooper (2007) articulated that organizational performance is hinged on trust while Cunningham and Gresso (1993) were emphatic that the emotional functioning
of a firm is fuelled by the trust people have on them. Gibbs (1972) specified that organizational trust creates an environment that ensures reciprocal feelings of acceptance, confidence and warmth. A more detailed definition of trust was articulated by Cummings and Bromiley (1996) who stated that trust is the hope that another group or individual will a) in good faith attempt to meet the commitments set whether explicit or implicit, b) exhibit sincerity in all negotiations and commitments as well as c) restrain from taking undue advantage others even when there are numerous opportunities to do so. To this end, the model propounded by Cummings and Bromiley (1996) is believed by researchers to be effective in a work environment which is the case in this particular study. The utilization of this scale was to draw out perception and belief of employees on organizational trust. .898 was the alpha value to this regard.

Perceived Organizational Support

The researcher utilized 8 items to measure the perceived organizations support (POS). The researcher employed Eisenberger’s model that was developed and customized to fit the researcher’s context which was Thailand (Eisenberger, 1986). The social exchange theory (Blau, 1964) postulates that employees evaluate and make judgment on work relationships depending on the level of reciprocity in the long term (Rousseau, 1989).

POS in this regard is defined as the healthy perception that a firm is concerned to the emotional needs of employees besides values their loyalty, commitment and effort. Orpen (1994) explained that perceived organizational support assumes that meeting the employee needs emotionally and exhibiting the readiness of the firm to reward them for increased effort in their work develops the belief among employees that the firm appreciates their contributions and is concerned with their general welfare. Every party in any relationship has perceptions and expectations from each other and as long as there are mutual benefits then neither of the parties will be aggrieved that their expectations have not been fulfilled. Therefore, reciprocity is foundation of social exchanges (Tansky and Cohen, 2001). Eisenberger et al., (1986) termed this as “Perceived Organizational Support”.

POS has also been noted to be effective in the repair of damaged organizational trust through development of a context that enhances the degree of organizational trust within the management at the top. .895 was the alpha value in this regard.

Data analysis

The analysis of data involved calculating the percentage, frequency, mean and standard deviation. The data was analyzed using LISREL 9.2. This made it possible to approximate the path models using the maximum likelihood approximation. The general match for this model was evaluated by considering: Chi-square, root mean square error of approximation (RMSEA) at no more than 0.08 (Kliewer & Murrelle, 2007), standardized root mean square residual (SRMR) less than 0.08 and goodness of fit index (GFI) in excess of 0.90 (Browne & Cudeck, 1993). Other measures considered in finding a fit was standardized residuals in excess of 2.00, an ideal fit should have a relative chi-square($\chi^2$/df ratio) of 3.00 or less with CFI and NNFI at .90 or higher (Bentler & Bonett, 1980).
Result

Table indicates that all the relevant variables of this model including the mean, standard deviation as well as correlation coefficient exhibit important association with the various variables of reference dependent, independent and mediator. The measures indicated sufficient levels of sustainability.

Table 1 Means, Standard Deviations and Correlations (n=400)

<table>
<thead>
<tr>
<th>Variable</th>
<th>POS</th>
<th>OT</th>
<th>OC</th>
<th>OCP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Organizational Support</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organizational Trust</td>
<td>.661**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organizational Commitment</td>
<td>.567*</td>
<td>.767*</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Organizational Culture Performance</td>
<td>.359**</td>
<td>.383*</td>
<td>.413**</td>
<td>1</td>
</tr>
</tbody>
</table>

**M**

<table>
<thead>
<tr>
<th></th>
<th>POS</th>
<th>OT</th>
<th>OC</th>
<th>OCP</th>
</tr>
</thead>
<tbody>
<tr>
<td>28.73</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>41.348</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>91.285</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>97.61</td>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>POS</th>
<th>OT</th>
<th>OC</th>
<th>OCP</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.529</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.495</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.36</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.261</td>
<td></td>
<td></td>
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</tbody>
</table>

**p< 0.01, (n=400); the value of parenthesis are Cronbach’s alpha

Consequently, the model matched the empirical data detailing that perceived organizational support has no direct influence on organizational culture performance. However, perceived organizational support was indirectly related to organizational culture performance through mediating variables organizational commitment and organizational trust. There was strong indirect effect between perceived organizational support and organizational culture performance through the mediating role of organization commitment. Essentially, the model indicated that 23.6% of the variance could be explained in organizational culture performance. The important associations among the dependent, mediator and independent variables is illustrated in figure 1

![Figure 1: Path analysis of causal model of Organizational Culture Performance](image)

Chi-square = 0.25, df = 1, p = .52019, GFI = 1.00 AGFI=.997, SRMR = .00525, RMSEA = 0.01

**p < 0.01

Figure 1: Path analysis of causal model of Organizational Culture Performance

The matrix pathways from exogenous to endogenous variables detailed that the general fit model had a chi-square of 0.25 (where df=1 and where p=.62019) with a
0.1 approximation error in the root mean square. Subsequently, the goodness fit index was adjusted to .997 ($\chi^2 (1) = .25$, $p=.62019$, GFI= 1-00, RMSEA=.01). This means that there no significant association with the model in question

Conclusion and Recommendation

The aim of this study was to analyze the association of perceived organizational support to organizational culture performance with the mediating variables being organizational commitment and organizational trust. The study results indicated that the aforementioned variables contributed to organizational culture analysis especially through the mediating variables. Further, the post analysis data confirmed the model hypothesized in the study besides proved that it was a good fit for the data that was empirical.

The association was interpreted to mean that the manner in which the organization structured the POS had potential of enhancing the performance of employees through considering the psychological variable of organizational commitment and organizational trust of employees.

The findings of this study were in tandem with Kongkaphan (2014) who found out that POS is associated to job performance through employee satisfaction and organizational commitment with the study subjects being drawn from Kanchanaburi Rajabhat University, Bangkok, Thailand.

Similarly Yeh and Hong (2012) linked organizational commitment to a mediator role between type of leadership and job performance. The findings detailed that the staff were more committed to the organization if they perceived that their supervisor was supportive of them and hence heightened increased performance.

The researcher found out that there no direct relationship between POS and D OCP. However, there exited an indirect relationship between POS and OCP through the mediating variables OCT and OT. This was in accordance to previous studies that indicated that job performance among employees was increased when they obtained support from their organization including supervisor and peer support (Canipe, 2006). Narang and Singh (2012) found out that job performance increased when the employees were accorder supervisory and economic support. Bakiev (2013) proposed that OT has a positive association to performance of employees upon studying the population in Kyrgyzstan police forces.

All variables in the construct model could be explained with a coefficient of 23.6% of OCP. The study found no correlation between POS and OCP. Consequently, a stronger correlation was found between POS and OCP through OC. As such, organizations require considering all variables, perceived organizational support, organizational commitment and organizational trust in the quest to enhance the organizational culture performance across businesses.

It would be interesting to test the moderation effects of the varied psychological domains on the relationships proposed. The significance of the varied contextual variables proposed should be examined in reference to the hypothesized relationships.
Besides generating valuable insight, the results could detail on the type of industry or level of centralization required for some of the variables.

**Limitation**

The study sample was limited as the data was gathered from employees within the real estate business in Bangkok, Thailand. Though the findings could be used to generalize within the context specific business they cannot be used for other related businesses. Further, the findings cannot be used to generalize the situation in other countries.

**Acknowledgement**

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References


**Contact email:** subhawatana@gmail.com.
Effects of Games for Enhancing Executive Function Program on Preschoolers:
Mediational Role of Executive Function Skills

Rattanyoo Apichonponsakorn, Srinakharinwirot University, Thailand
Sittipong Wattananonsakul, Srinakharinwirot University, Thailand

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Abstract
Executive function (EF) skills has been highlighted as a potential factor for many cognitive development. One of the most important cognitive indicator for the transition to school is early academic achievement which includes mathematical and reading skills in preschoolers. However, it has been less explored on how to establish EF skills through daily school program. The current research created a 4-week EF skills training program through playing games for preschoolers (Games for Enhancing Executive Function – GEEF program) which integrates the executive function main domains: inhibitory self-control, flexibility, and emergent metacognition with Piaget’s type of play called game with rules. Participants were 120 typically developing 5-year-olds from kindergartens in Ratchaburi, Thailand, divided into two groups: experimental group implemented with GEEF program and control group with normal school activities. The result indicates that GEEF program can significantly improve the experimental group early academic achievement comparing with control group. The research also suggests that EF skills may be one mechanism which helps increase early academic achievement in preschool children.

Keywords: executive function skills, early childhood development, inhibitory control, flexibility, meta-cognition
Introduction

Preschool education is important for the transition to formal school as crucial skills are developed during this period. One of the most predictive factor for school readiness and later school success is early academic achievement which include early mathematical and reading skills (Schweinhart, Montie, Xiang, et al. 2005; Lonigan, Burgess, & Anthony. 2000; Diamond, Barnett, Thomas, & Munro. 2007). The early mathematical skills are 1) numeracy 2) measurement 3) geometry and spatial ability and 4) logical thinking. The early reading skills include 1) letters knowledge 2) phonological awareness 3) vocabulary and 4) symbol understanding.

According to many recent research, executive function (EF) skills has been highlighted as a potential factor for many cognitive development, including early academic achievement. The executive function domains evidentially emerged in preschool age are 1) Inhibitory self-control 2) Flexibility and 3) Meta-cognition which includes working memory, and planning and organizing. (Blair & Razza. 2007; Bull, Espy, & Wiebe. 2008; Lan, Legare, Ponitz, Li, & Morrison. 2011; Vandenbroucke, Verschueren, & Baeyens. 2017).

In the past two decades, there are many researches focusing on how to assess the executive function skills in preschool age children (Garon, et al. 2008; Anderson. 2002; Jacques, & Zelazo. 2001; Espy, et al. 2001; Zelazo. 2006). However, the study about how to integrate executive function skills practice in curriculum for preschoolers to enhance other cognitive development needed for school readiness is still limited.

In this research, the Games for Enhancing Executive Function Program (GEEF Program) was created by integrating all the domains of executive function emerged in preschool age children (Isquith, et al. 2005) with playful activity adopted from Piaget’s game with rules (Piaget. 1962). The pretest and posttest of early academic achievement and executive function skills were applied. Also, the executive function skills were tested for the mediational effects between the GEEF program and the early academic achievement in preschoolers.

Research Method

The study applied the quasi-equivalent control group design (Campbell. 1971) with the pretest to test the equivalence between the experimental and control group and the posttest to test the differentiation between both groups after implemented the experimental group with the GEEF program.

Participants

This study was implemented in 2 kindergartens in Ratchaburi Province, Thailand. The second-year kindergarteners were in the second semester of the school year 2016 and they were about to be the first graders of the primary school next semester. The participants in this study were 120 typically-developed second-year kindergarteners (60 boys and 60 girls) divided equally into 2 groups: experimental group implemented with GEEF program and control group with normal school activities. Age of the participants were between 64-77 months (M=71.39). For the experimental group,
parents were asked for cooperation in their children attendance at the program which took place in the normal classroom during the school time.

**Instruments**

**Games for Enhancing Executive Function Program (GEEF Program)**

The program used in this study was the integration between executive function domains (inhibitory self-control, flexibility, working memory, and planning and organizing) and playful activities which includes 6 games with rules according to Piaget’s types of play classified by cognitive complexity. The games used in the program were selected by the following criteria: 1) attractive to children 2) developmentally appropriated 3) in accordance with the executive function main domains and 4) adjustable for simple and more complex rules.

This 30-minute-session program consists of 3 phases: 1) Introduction to the games (2 sessions) 2) Simple rules phase (5 sessions) and 3) Advance rules phase (5 sessions). The program was implemented 3 times per week, 12 sessions in total.

In the introduction phase, the participants in the experimental group were told stories related to each game, combined with the rules of the game. Then, it was followed by the simple rules phase in which the children could choose the game they were interested to play. After finished all the simple rules phase, the program moved on to the advance rules phase in which the rules of each game became more complex and required more skills.

**Early Academic Achievement Test**

The early academic achievement test consisted of 2 parts: early mathematical skills test and early reading skills test. Both parts were based on Thailand national preschool curriculum. The early mathematical skills are 1) numeracy 2) measurement 3) geometry and spatial ability and 4) logical thinking. The early reading skills include 1) letters knowledge 2) phonological awareness 3) vocabulary and 4) symbol understanding. The test was used with both experimental and control group, before and after the implementation of the GEEF program.

The early academic achievement test was conducted on 100 second-year kindergarteners which were not the participants in the study. The reliability, difficulty and discrimination of the test was tested. The Alpha Cronbach’s coefficient of reliability of the total test was .91. The total test was also in adequate level of difficulty ($M=.74$) and discrimination ($M=.30$)

**Executive Function Skills Test**

The executive function skills test used in this study was developed from the Head-Toes-Knees-Shoulders Tasks (HTKS) (Ponitz, et al. 2009). The test was translated into Thai version and the tasks were thoroughly analyzed with all the main domains of executive function. This test was selected to measure the executive function skills as it is appropriate for teacher use and school context.
The test is the direct behavioral observation test. Children were asked to do the opposite of what they heard. The correct responses gained 2 points; the incorrect responses gained 0 point and if the children self-corrected with the correct action, they gained 1 point. There are total 20 items and scores ranged 0 to 40.

Results

The Equivalence Between Groups

Before the implementation of the GEEF program, the early academic achievement and executive function skills of both groups were tested to analyze the equivalence between the groups. The dependent sample t-test analysis was adopted. The result showed that both group had no significant difference in every factor as shown in Table 1, indicated that both groups were equivalent.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Experimental Group (n=60)</th>
<th>Control Group (n=60)</th>
<th>t</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean (M)</td>
<td>Standard Deviation (SD)</td>
<td>Mean (M)</td>
<td>Standard Deviation (SD)</td>
</tr>
<tr>
<td>Early academic achievement</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Early mathematical skills</td>
<td>13.62</td>
<td>1.32</td>
<td>14.25</td>
<td>2.62</td>
</tr>
<tr>
<td>- Early reading skills</td>
<td>13.17</td>
<td>3.34</td>
<td>13.55</td>
<td>3.02</td>
</tr>
<tr>
<td>Executive function skills</td>
<td>13.47</td>
<td>6.04</td>
<td>13.27</td>
<td>6.77</td>
</tr>
</tbody>
</table>

Table 1: Comparing pretest means of early academic achievement and executive function skills between experimental and control group

Comparing Posttest Means Between Groups

After the implementation of the GEEF program in the experimental group, the early academic achievement and executive function skills of both groups were tested again to analyze the difference between groups. The dependent sample t-test analysis was adopted. The result showed that the experimental group early mathematical skills means was significantly higher than the control group at level .01, as well as executive function skills, and the early reading skills means in the experimental group was significantly higher than the control group at level .05, as shown in Table 2.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Experimental Group (n=60)</th>
<th>Control Group (n=60)</th>
<th>t</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean (M)</td>
<td>Standard Deviation (SD)</td>
<td>Mean (M)</td>
<td>Standard Deviation (SD)</td>
</tr>
<tr>
<td>Early academic achievement</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Early mathematical skills</td>
<td>15.99</td>
<td>2.30</td>
<td>13.94</td>
<td>3.89</td>
</tr>
<tr>
<td>- Early reading skills</td>
<td>15.04</td>
<td>3.03</td>
<td>13.92</td>
<td>3.11</td>
</tr>
<tr>
<td>Executive function skills</td>
<td>17.83</td>
<td>4.55</td>
<td>13.48</td>
<td>6.57</td>
</tr>
</tbody>
</table>

Note: **p<.01, *p<.05

Table 2: Comparing posttest means of early academic achievement and executive function skills between experimental and control group
Mediational Role Analysis of Executive Function Skills

The matrix of correlation between each variable was utilized to test that the variables had no multicollinearity condition which could cause the decreasing of the efficiency in predicting or describing the dependent variable (Kline. 2005). Moreover, the group variables, which were nominal scale, were represented with dummy variables: 0 for control group and 1 for experimental group. The results of Pearson’s correlation coefficient between 7 variables were shown in Table 3.

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Group:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>experimental/control</td>
<td></td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Math_T1</td>
<td>-.153</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Reading_T1</td>
<td>-.061</td>
<td>.240**</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. EF_T1</td>
<td>.016</td>
<td>.373**</td>
<td>.324**</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Math_T2</td>
<td>.308**</td>
<td>.516**</td>
<td>.328**</td>
<td>.277**</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Reading_T2</td>
<td>.180*</td>
<td>.324**</td>
<td>.650**</td>
<td>.650**</td>
<td>.518**</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>7. EF_T2</td>
<td>.362**</td>
<td>.341**</td>
<td>.230*</td>
<td>.474**</td>
<td>.465**</td>
<td>.338**</td>
<td>1.000</td>
</tr>
</tbody>
</table>

Note: Math=Early mathematical skills, Reading=Early reading skills, EF=Executive function skills, T1=Pretest, T2=Posttest
**p<.01, *p<.05

Table 3: Correlations between 3 cognitive variables, pretest and posttest, and group variable

As shown in Table 3, paired data of group variable and executive function skills was not exceed .85, indicated that there is no multicollinearity condition. The correlation coefficient between executive function skills and early academic achievement ranged .303 to .432, indicated that the relationship between variables were linear correlation which proved that executive function skills significantly correlated with early academic achievement.

According to the testing for mediation diagram as shown in Figure 1, the regression analysis was implemented to test the mediational effect of executive function skills between the GEEF program and the early academic achievement in four steps (Baron, & Kenny. 1986) as shown in Table 4. The results of the mediational analysis as shown in figure 2 and 3.

Figure 1: Mediational analysis diagram
**Table 4: Mediational analysis steps**

<table>
<thead>
<tr>
<th>Step</th>
<th>Analysis</th>
<th>Diagram</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Conduct a simple regression analysis with X (group variable) predicting Y (early academic achievement) for path c alone, ( Y = B_0 + B_1X + e )</td>
<td><img src="image1" alt="Diagram 1" /></td>
</tr>
<tr>
<td>2</td>
<td>Conduct a simple regression analysis with X (group variable) predicting M (EF skills) for path a, ( M = B_0 + B_1X + e )</td>
<td><img src="image2" alt="Diagram 2" /></td>
</tr>
<tr>
<td>3</td>
<td>Conduct a simple regression analysis with M (EF skills) predicting Y (early academic achievement) for path b alone, ( Y = B_0 + B_1M + e )</td>
<td><img src="image3" alt="Diagram 3" /></td>
</tr>
<tr>
<td>4</td>
<td>Conduct a multiple regression analysis with X (group variable) and M (EF skills) predicting Y (early academic achievement), ( Y = B_0 + B_1X + B_2M + e )</td>
<td><img src="image4" alt="Diagram 4" /></td>
</tr>
</tbody>
</table>

**Figure 2: Results diagram of mediational analysis between GEEF program, executive function skills and early mathematical skills**

**Figure 3: Results diagram of mediational analysis between GEEF program, executive function skills and early reading skills**
Conclusions

This quasi-experimental study was intended to examine the efficiency of the GEEF program on the early academic achievement in preschoolers and to study the mediational role of executive function skills that lied in between the GEEF program and the early academic achievement. The program was created based on all main domains of executive function that emerged during preschool age, combined with playful activity which is developmentally appropriate based on Piaget’s theory of play categorized by cognitive development: game with rules (Piaget. 1962).

Before the implementation of GEEF program, both experimental and control group were the equivalent in early academic achievement and executive function skills, confirmed by the pretest results. After all the 12 sessions of the GEEF program were finished, the posttest results showed that the GEEF program was efficient as the experimental group gained significantly higher scores in early academic achievement and executive function skills than the control group. These findings support the hypothesis that the GEEF program contributed of executive function main domains can enhance both executive function skills and early academic achievement in preschoolers.

In agreement with the literature, there is relationship between executive function skills and early academic achievement, both in early mathematical and reading skills (Blair & Razza. 2007; Bull, et al. 2008; Lan, et al. 2011; Vandenbroucke, et al. 2017). As the correlation coefficient analysis found that in pretest and posttest, both variables were significantly and positively correlated. Although, the correlation coefficient between executive function skills and early mathematical skills is higher than the early reading skills. Moreover, the mediational analysis confirmed the relationship between these two variables, suggested that the executive function skills effect the early academic achievement as complete mediator between the GEEF program and the early academic achievement.

Research Implications

The present research is the sample of how to integrate the developmentally appropriate activities that can enhance executive function skills in preschool curriculum as these skills are crucial for many cognitive development, including the early academic achievement which can predict the school readiness and later school success. Also, the integration of executive function skills can be extended to more variety of activities to help improve the quality of preschool curriculum in the future.
References


**Contact email:** rattanyoo@gmail.com
Factors Related to Risk-taking among Adolescents in Krabi Province

Supattra Laksanajan, Srinakharinwirot University, Thailand
Sittipong Wattananonsakul, Srinakharinwirot University, Thailand

Abstract
The present study aimed to predict the factors related to risk-taking among adolescents in Krabi Province, Thailand. The participants were 400 grade 8 and 11 students from schools in Krabi Province. The research instruments include questionnaires on perceived parental style, perceived peer norm, risk preference, risky decision making and risk behaviors. The correlations and multiple regression analysis were conducted to analyze the data. The results suggested that gender, perceived parental style, and perceived peer norm were correlated with risk taking among adolescents. Specifically, male tends to be more risk-taking than female, perceived authoritarian parental style and perceived peer norm can predict risk-taking. Perceived peer norm is the most important factor of risk-taking in adolescence. These findings were in accordance with the theory that adolescents tend to have more risky decisions and risk behaviors than adults and peers have strong influence on adolescent’s involvement in risky behavior.

Keywords: Risk Taking, Adolescent, Perceived Peer Norm, Perceived Authoritarian Parental Style
Introduction

The adolescence (ages 11-21) is a time of multiple transitions, such as the transition to puberty and transitions involving parent–child relationships, school, peers, and cognitive and emotional abilities (Michael and Ben-Zur, 2007). During adolescence, young individuals are challenged by the ‘storm and stress’ (Arnett, 1999). Adolescents show elevated involvement in an array of risk-taking behaviors, including criminal behavior, unsafe sexual practices, and initiation of alcohol use (Arnett, 1992; Jessor & Jessor, 1977; Steinberg, 2008). Adolescents have more risks than children or adults (Gardner & Steinberg, 2005).

In Thailand, it is evident that adolescents tend to be more risk-taking such as drinking alcohol, smoking, sexual risk behaviors and unprotected sex that causes teenage mothers and violence in school. The National Statistical Office of Thailand surveyed about smoking and drinking behavior among Thai population between 2001 to 2014 and found that adolescents were more likely to smoke and drink alcohol. There were 14.7% of adolescents between ages 14-24 that smoked and the average age of smoking decreased from 16.8 years in 2007 to 15.6 years in 2014. The drinking alcohol behavior among adolescents aged between 15-24 increased from 21.6% in 2001 to 25.2% in 2014. The average age to start drinking was reduced from 17.2 years in 2007 to 16.7 years in 2014. The data from the survey of reproductive health in adolescents and youth in 2012 of the Bureau of Epidemiology, Department of Disease Control found that sexual behavior ratio in students had increased. The 5-year statistics from 2008 to 2012 showed that the percentage of male and female students in grade 8 who had sexual intercourse increased from 3.7% and 2.3% respectively in 2008 to 5.3% and 5.1% respectively in 2012, while the percentage of male and female students in the grade 11 who had sexual intercourse increased from 24.1% and 14.7% respectively in 2008 to 24.8% and 20.2% respectively in 2012.

Social norms theory suggests that peers have strong influence on adolescent’s involvement in risky behavior (Berkowitz, 2005). This influence is rooted in the adolescent’s beliefs about the norms that are prevalent among their peers. Social and environmental concepts emphasize the influence of parents, peers, teachers, community, and culture on risk-taking during adolescence as adolescence is also known as a period of growing autonomy and emerging individualization from the family (Igra & Irwin, 1996).

According the risky situation in Thai adolescents and the theoretical concepts, this study focused on studying factors that related to risk taking in adolescent and the purpose of this research was to predict factors related to risk taking in adolescents.
Method

Participants and Procedure

Participants in the study were 400 grade 8 and grade 11 students. The two-step sampling was used. Participants were asked to complete all the questionnaires that had been tested for the validity and reliability. The study was ethically certified for research in human by the Strategic Wisdom and Research Institute, Srinakharinwirot University.

Measure

There are 5 questionnaires used in the present study as following:

Perceived parenting style questionnaire

This questionnaire was developed from Panthumnavin (1984) parenting style questionnaire. It is the 5-rating scale test ranged from 1-least accurate to 5-most accurate. The questionnaire, divided into 4 parts due to 4 different parenting styles, was examined for the reliability and the Cronbach’s Alpha coefficient of the permissive, authoritative, abusive, authoritarian parenting styles were .803, .671, .698 and .663 respectively.

Perceived peer norm questionnaire

This questionnaire was developed from Wongwiwat (2005) Perceived Peer Norm Assessment. It is the 7-rating scale ranged from 1-least accurate to 7-most accurate. The Cronbach’s Alpha coefficient for the total questionnaire reliability was .886.

Risk preference assessment

The assessment was created from the related theory and literature review. It is the 5-rating scale ranged from 1-least accurate to 5-most accurate. The Cronbach’s Alpha coefficient for the total assessment reliability was .871.

Risky decision-making assessment

This assessment was based on Gardner and Steinberg’s study (2005). The items were sample situations with 4-rating scale ranged from 1-certainly decide to do to 4-certainly decide not to do. The Cronbach’s Alpha coefficient for the total assessment reliability was .841.

Risk behavior assessment in adolescent

The assessment was created from the related theory and literature review. It is the 5-rating scale ranged from 1-least accurate to 5-most accurate. The Cronbach’s Alpha coefficient for the total assessment reliability was .911.
Data analysis

Pearson Moment Correlation and Multiple Regression Analysis methods were utilized for the data analysis.

Results

Table 1 correlation matrix variables in the analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Risk taking</td>
<td>1</td>
<td>.445***</td>
<td>-.135*</td>
<td>-.069</td>
<td>.336***</td>
<td>.417***</td>
<td>-.529***</td>
</tr>
<tr>
<td>2. Gender</td>
<td>1</td>
<td>-.074</td>
<td>.000</td>
<td>.347***</td>
<td>.342***</td>
<td>-.348***</td>
<td></td>
</tr>
<tr>
<td>3. Perceived permissive parenting style</td>
<td>1</td>
<td>.621***</td>
<td>-.164**</td>
<td>-.185**</td>
<td>.026</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Perceived authoritative parenting style</td>
<td>1</td>
<td>.136*</td>
<td>-.018</td>
<td>-.071</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Perceived abusive parenting style</td>
<td>1</td>
<td>.705***</td>
<td>-.331***</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Perceived authoritarian parenting style</td>
<td>1</td>
<td>-.356***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Perceived Peer Norm</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .05, **p < .01, ***p < .001

The correlation coefficient analysis between the set of independent variables and the dependent variable revealed that risk taking is correlated with gender, perceived permissive parenting style, perceived abusive parenting style, perceived authoritarian parenting style and perceived peer norm with the following value: .445, -.135, .336, .417, and -.529 respectively, which were statistically significant at level .05 and .001. Evidentially, the risk taking correlation coefficient with perceived peer norm was -.529 which was the strongest and negative relationship. There was also positive relationship between risk taking and other variables: gender, perceived authoritarian parenting style, and perceived abusive parenting style with the following value: .445, .417, and .336 respectively.
Table 2 Multiple Regression Analysis in predicting risk taking in adolescent

<table>
<thead>
<tr>
<th>Predictor</th>
<th>b</th>
<th>SE</th>
<th>(β)</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant value</td>
<td>-.419</td>
<td>.222</td>
<td>-1.887</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>.483</td>
<td>.120</td>
<td>.247</td>
<td>4.017***</td>
</tr>
<tr>
<td>Perceived authoritarian parenting style</td>
<td>.066</td>
<td>.020</td>
<td>.200</td>
<td>3.244**</td>
</tr>
<tr>
<td>Perceived Peer Norm</td>
<td>-.021</td>
<td>.003</td>
<td>-.372</td>
<td>-6.018***</td>
</tr>
</tbody>
</table>

* p < .05, ** p < .01, *** p < .001

The multiple regression analysis found that gender, perceived parenting style and perceived peer norm could predict risk taking in adolescent. The results suggested that male was more risk taking than female (b = .483). Perceived authoritarian parenting style could most predict risk taking (b = .066). Also, perceived peer norm had strong influence on risk taking in adolescent (b = -.021).

According to Table 2, the regression coefficient of perceived peer norm was the highest (β = -.372), followed by male gender (β = .247) and perceived authoritarian parenting style (β = .200). The R Square value of risk taking in adolescent equaled .390, implied that the three dependent variables had 39% predictive accuracy on risk taking.

The diagram of male gender, perceived authoritarian parenting style and perceived peer norm as predictors of risk taking in adolescent was shown in Figure 1, based on the followed predicting equation:

Predicted Risk taking = -.419 + .483*** (male) + .066*** (Perceived authoritarian parenting style) -.021*** (Perceived Peer Norm)
Figure 1: Diagram of predictors of risk taking

**Conclusion and Discussion**

This study found that male adolescents were significantly more risk taking than female. The result also suggested that the perceived authoritarian parenting style was associated with a higher risk behavior, in agreement with Nikken and de Graaf (2013) who found the restrictive parental mediation contributes to sexual experimentation among female adolescent. The result of the present study also provided support for the recent argument of family scholars that disaggregated the effect of parental monitoring from information solicited from children. Consistent with their approach, excessive monitoring and control during adolescence might not be able to protect children from participation in deviant behavior (Kerret et al., 2010). Similar to other studies, the present study found that permissive and authoritative parenting style can reduced risky behaviors in adolescents.

In addition, this research also found that perceived peer norm effected risk taking in adolescent. In other words, adolescent who gained negative score were influenced more by norms from their peers. This finding was in concordance with Gardner & Steinberg (2005) that conducted the experimental research about peer influence on risk taking, risk preference, and risky decision making in adolescence and adulthood. They found that adolescents took more risks as they focused more on the satisfaction than the following results of risky behavior, and made riskier decisions when they were in peer groups than when they were alone and peer had stronger influence on risk taking and risky decision making among adolescents and youths than adults. This research also supports the study of Michael and Ben-Zur (2007) as they investigated the relationship between social and affective factors and the risk-taking behavior of adolescents aged 16 to 18 years. They concluded that risk behavior among the male adolescents was related mainly towards peer group influences, while female adolescents were related towards relationships with parents.
References


Contact email: laksanajan_fon@hotmail.com; Supattra.laksanajan@gmail.com
Effect of Psychological and Social Factors on Aging Empowerment among Middle Adulthood in Bangkok

Awassadha Jongudomsuk, Srinakharinwirot University, Thailand
Chanya Leesattrupai, Srinakharinwirot University, Thailand

Abstract
The purposes of this research were (1) to examine the level of Aging empowerment among middle adulthood in Bangkok, (2) to examine the relationship between psychological factors (attitudes towards Aging empowerment, internal locus of control and the knowledge about Aging empowerment) and social factors (social support and getting information through online social media) on Aging empowerment among middle adulthood in Bangkok ; (3) to examine the effects of psychological and social factors that may predict Aging empowerment among middle adulthood in Bangkok. Participants were the 460 middle adulthood aged between forty five to fifty five years old in Bangkok, Thailand. Purposive sampling was used, and the instruments used to collect the data were questionnaires. Their alpha coefficients ranged from .70 to .93. The researchers used data analysis and descriptive statistics. There was an analysis of the relationship between variables by analyzing the Pearson correlation coefficient and predictive analytics capabilities with multiple regression analysis (Enter method).
The results of this research revealed that health, participation and the security level of overall Aging empowerment were at high level. Psychological and social factors had a significant positive relationship with Aging empowerment overall and each aspect except that internal locus of control had a negative relationship with Aging empowerment. Psychological and social factors could significantly predict 59.6% of Aging empowerment among middle adulthood between forty five and fifty five years of age in Bangkok.

Keywords: Aging empowerment ; psychological factors ; social factors
Introduction

The purposes of this research are the following: to investigate the level of Aging empowerment of middle aged population, the relationship between the psychological and social factors both overall and individual aspect and examining the psychological and social factors that can foretell aging empowerment both overall and individual in respond to the aging population in Bangkok. The background and significant of this research are the following:

Nowadays, the likelihood of aging population rise in Thailand is significantly increasing according to the national census in 2014 exemplified that the amount of aging population was 14.9% of the total population (National Statistical Office, 2014). In 2033/2040, estimate that older person or 80 years old upward person will increase fast almost triple the size more than people in other aged groups (Pramote prasardkul, 2015). Therefore, effect the overall population into the elderly society or population aging totally. It is necessary to be prepared before entering the stage of elderly.

The preparation can be done through the associated with the Active Aging Policy Framework of World Health Organization: WHO (2002). WHO states that Active aging is an important behavior for person who wish for wellbeing and long life expectation which will lead to healthy life, participation and security. These three are the main components of aging empowerment concept according to WHO. Including (1) Health is a completed ability to prevent and reduce risk factors of diseases, equality in maintaining, managing and freedom accessibility of medication for individual healthy life. (2) Security is an assurance of physical, social, financial, including appropriated caretaker and consistence living environment. (3) Participation is a cooperation within family and society which included economic, social and cultural aspects following the basic human rights and elderly’s needs. Participation can be both Financial and Non-financial benefits which encourage elderly’s will towards good action for society and will lead to qualitative post-retirement life.

Majority problem associated with aging is the preparation stage before post-retirement. Facing with aging is a crisis of middle aged because they are close to the retirement stage and problems usually occur so that it is essential to pay attention about preparation stage before post-retirement (Surakul Janeaobrom, 1991; Pranot Kaowchim, 1997).

In this research study, the researchers used Social Cognitive Learning Theory as a studied frame. Aging empowerment is a desirable behavior that will lead to 3 aspects of qualitative life. Theory of Bandura (1989) exemplifies that human behavior is influenced by (1) Person (2) Environment. Likewise, human behavior is not occurred and changed due to only environmental factor but also Human factor.

Aging empowerment is made up of many indicators such as Attitude towards aging empowerment. Related research studies found that Attitude towards aging can foretell Aging empowerment (Wilaiporn Wongkeenee et al., 2013). Studies about Internal locus of control illustrate the positive relationship with the post-retirement preparation (Thipaporn Thongsawang, 1998). Studies of Knowledge about aging empowerment also demonstrate that knowledge about post-retirement preparation for effective aging
empowerment consist of 3 aspects (Usa Porntong, 2010). Studies about Social support indicator depict that aging empowerment can be indicated by social support (Wilaiporn Wongkeenee et al., 2013) and getting information is one of indicators that can predict the index of aging empowerment (Kusul SoonthornThada & Kamolchanok kumsuwan, 2010).

This research study has focus on psychological and social indicators that effect towards aging empowerment of Bangkok’s middle aged population to evaluate which indicators have significant effect towards target group for the benefits of aging empowerment support.

**Literature Review**

The research study was concentrated on level of aging empowerment, relationship between psychological and social factors that can predict aging empowerment of Bangkok’s middle aged population by using the Active aging framework of WHO (WHO, 2002). Documentation and references about active aging or aging empowerment of WHO (WHO, 2002) were also used which can be recognized globally. Three aspects for successful aging empowerment consist of wellbeing, social participation and security.

Factor related to aging empowerment can be illustrated as the following; Psychological factors which consists of Attitude towards aging empowerment, Internal locus of control, knowledge about aging empowerment. Social factors which contains Social support and getting information through online social media by using internet. If individual has positive attitude towards aging empowerment, internal locus of control and knowledge about aging empowerment then the development of aging empowerment in person can be done when reach to the post-retirement stage. Moreover, if individual gets social support in various ways such as emotional, exceptional, social participation and getting information through online social media by using internet then good aging empowerment can be established.

The review of documentation, references and Social Cognitive Learning theory by Bandura (1989), the researchers specify the concept of this research study to match with the framework within this research as following;

<table>
<thead>
<tr>
<th>Psychological factors</th>
<th>Social factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Attitude towards Aging empowerment</td>
<td>1. Social support</td>
</tr>
<tr>
<td>2. Internal locus of control</td>
<td>2. Getting information through online Social media by using Internet</td>
</tr>
<tr>
<td>3. The knowledge about Aging empowerment</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Aging empowerment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Health</td>
</tr>
<tr>
<td>2. Participation</td>
</tr>
<tr>
<td>3. Security</td>
</tr>
</tbody>
</table>


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Methodology and Methods

Population and target group

The methodological of this research is consist of the predictive relationship method in respond to the aging empowerment. The target of this investigation is middle aged population between 45 to 55 years old whose works are in Bangkok. The size of sample group was calculated from the table guideline by Krejcie and Morgan (1970) which can provide 95% trustworthy result and accuracy no less or more than 5%. To prevent the information lost during the collection, the researchers instead calculate the accuracy of data to 20% (Kanit Kaimook, 2003). Therefore, the amount of sample group in this research is 460 people, selected by the purposive sampling method within the population target stated in the beginning of this paragraph.

The methods used in data collection

The method used in this data collection consist of 7 parts; (1) Individual questionnaire, (2) Aging empowerment questionnaire that improved from Active aging questionnaire by Supranee Tangwong et al. (2009) which built on the principle of active aging of WHO (WHO, 2002) – having the content validity equal to 0.89, (3) Attitude towards aging empowerment questionnaire – created by the researchers which has the content validity equal to 0.63, (4) Internal locus of control questionnaire developed from the Internal locus of control questionnaire by Poonnaphat Tullayatasitien (2007) which has the content validity equal to 0.67, (5) Questionnaire about the knowledge of aging empowerment which researchers created it up and has the content validity equal to 0.92, (6) Questionnaire about social support that researcher formed following the concept of Cobb (1976) – having the content validity equal to 0.76 and (7) Getting information through online social media by using internet questionnaire which also developed by the researchers and has the content validity equal to 0.86.

Each questionnaire has 5 levels of rating scale; messages contain both positive and negative aspects. The examining quality of questionnaires were done following the Index of Item of Objective Congruence: IOC from 3 expertise and try out with the 100 outsiders out of the target group to prove the reliability by using the method of Cronbach’s Alpha Coefficient. Then, published the result for the practical usage. The data analysis of basic variable used in this study was done by the Pearson’s Product Moment Correlation Coefficient and the scrutiny of Predictive of Aging empowerment was done by the used of Enter Multiple Regression Analysis.

Conclusions and Discussion

(1) The sample group has a high average result in Aging Empowerment’s percentage of 3.77. Moreover, the average of good health, the participation in Society, stability and security are also high – 3.65%, 3.66% and 4.01% in order. According to Bangkok’s development in every fields; result in more successful accessibility in Public utility, Education, technology and medication. These effect the improvement of Bangkok population’s life quality and significant of high Aging empowerment level (Bangkok Department of City Planning, 1999).
Analytical outcome of relationship between psychological and social factors and aging empowerment both overall and each aspect found that psychological and social factors have positive connection with aging empowerment suggestively at statistic level of .01 except Internal locus of control and Aging empowerment which has negative relationship both overall and each aspect (r = -0.88, -0.058, -0.149, -0.016). The result of this study has similarity to the one by Ladawan Noileiou (2008) which found that Internal locus of Control has negative relationship towards quality of life and each aspect. Internal locus of Control is an individual believe and has an impact on developing habit of aging empowerment. The believe is a driven force that encourage the behavior in respond to individual believe, although the believe doesn’t lie on the linear of reality base on the concept of Aging empowerment (Rotter, 1966).

The result of analysis can foretell the building of aging empowerment in overall which found that attitude towards Aging empowerment, Internal locus of control and the knowledge about Aging empowerment can predict the building of Aging empowerment significantly at Statistic level of .01 and .05 by the Psychological and Social indicators in overall 59.6. The result of this study shares the similarity to the one by Wilaiporn Wongkeenee et al. (2013) which found that attitude towards aging and knowledge about aging can predict active aging. Furthermore, the research’s outcome of Ladawan Noileiou (2008) also discovered that Internal locus of control has negative predictive value against the qualitative life behavior. This may be related to the fact that Internal locus of control is an individual believe which influence towards the development of aging empowerment habit of a person. Believe is a favor indicator that drives individual to behave in a way that may not lay on the reality concept of aging empowerment (Rotter, 1966) (Shown in Table of content 1).

<table>
<thead>
<tr>
<th>Variables</th>
<th>B</th>
<th>β</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude towards Aging empowerment</td>
<td>.178</td>
<td>.144</td>
<td>3.885</td>
</tr>
<tr>
<td>Internal locus of control</td>
<td>-.070</td>
<td>-.068</td>
<td>-1.962</td>
</tr>
<tr>
<td>The knowledge about Aging empowerment</td>
<td>.541</td>
<td>.590</td>
<td>12.076</td>
</tr>
</tbody>
</table>

R = .772, R square = .596, F = 123.748, S.E. est = .354, a = .795

Table 1: Multiple regression coefficients to normal in raw score (B) and standardized (β) constants and standard error in prediction of the predictive Aging empowerment in overall.

(3.1) Analytical result of predictive aging empowerment in relation to deal with positive health found that the knowledge about aging empowerment and the access of information through online social media by using internet can predict the coping of aging empowerment both health aspect well expressively at statistic level of .01 and .05. This result associate correspondingly with the one conducted by Panicha danguborn, Sujittra Junthawong, & Prayong Nakean (2013) which found that the knowledge of aging empowerment can predict the quality of elderly life. Also, the study’s result from Kusul SoonthornThada & Kamolchanok kumsuwan (2010) found that the accessibility to the information is an indicator to the active aging (shown in the table of content 2).
(3.2) the analytical result of ability to foretell the aging empowerment in relation to the engagement within the society found that attitude towards aging empowerment, Internal locus of control, knowledge about aging empowerment and social support can predict the progress of aging empowerment within society meaningfully at the statistic level of .01 and .05. This share the similarity with the result from Wilaiporn Wongkeenee et al. (2013) which stated that attitude towards aging and the knowledge about aging can predict the active aging. Therefore, the study by Ladawan Noileiou (2008) also demonstrates that Internal locus of control has a predictive value of negative against the qualitative life behavior in relation to the engagement within society. Perhaps the Internal locus of control is an individual believe which drives one to behave in a certain way within the social circle. The believe is an indicator to individual choice of habit interacting within the society even though some believe doesn’t associate with the reality according to the concept of aging empowerment in relation to the engagement within society (Rotter, 1966). Likewise, the research outcome from Chayanee Mier (2009) found that the support from social and family can predict the level of social engagement activity of elderly (shown in the table of content 3).

<table>
<thead>
<tr>
<th>Variables</th>
<th>B</th>
<th>β</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>The knowledge about Aging empowerment</td>
<td>.522</td>
<td>.470</td>
<td>7.723</td>
</tr>
<tr>
<td>Getting information through online Social media by using Internet</td>
<td>.160</td>
<td>.158</td>
<td>2.611</td>
</tr>
<tr>
<td>R = .612, R square = .375, F = 50.302, S.E.est = .534, a = .903</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2: Multiple regression coefficients to normal in raw score (B) and standardized (β) constants and standard error in prediction of the predictive health.

(3.3) The analysis outcome of empowerment aging in relation to the safety and security displayed that attitude towards and knowledge about aging empowerment can significantly foretell the aging empowerment correlated to the safety and security aspects at statistic level .01 and 0.5. In the same way of research result by Wanchai Kaewsumalee (2009) which depicted that attitude towards the preparation before post-retirement can encourage the confidential in post-retirement financial. This is supported by the research outcome by Somnuk UaJirapongpan & Pun Kawaen (2015) in which the knowledge about financial management has a positive implicant toward the financial ability and management of individual (shown in the table of content 4).

<table>
<thead>
<tr>
<th>Variables</th>
<th>B</th>
<th>β</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude towards Aging empowerment</td>
<td>.149</td>
<td>.103</td>
<td>2.377</td>
</tr>
<tr>
<td>Internal locus of control</td>
<td>-.191</td>
<td>-.159</td>
<td>-3.930</td>
</tr>
<tr>
<td>The knowledge about Aging empowerment</td>
<td>.484</td>
<td>.452</td>
<td>7.878</td>
</tr>
<tr>
<td>Social support</td>
<td>.200</td>
<td>.145</td>
<td>3.111</td>
</tr>
<tr>
<td>R = .667, R square = .445, F = 67.104, S.E.est = .485, a = .989</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3: Multiple regression coefficients to normal in raw score (B) and standardized (β) constants and standard error in prediction of the predictive participation.
<table>
<thead>
<tr>
<th>Variables</th>
<th>B</th>
<th>β</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude towards Aging empowerment</td>
<td>.325</td>
<td>.231</td>
<td>5.749</td>
</tr>
<tr>
<td>The knowledge about Aging empowerment</td>
<td>.617</td>
<td>.592</td>
<td>11.166</td>
</tr>
<tr>
<td>R = .724, R square = .525, F = 92.540, S.E.est = .437, a = .494</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4: Multiple regression coefficients to normal in raw score (B) and standardized (β) constants and standard error in prediction of the predictive security.

**Suggestion about the utilization of research result**

The overall of Aging empowerment can be strengthened by institutes and organizations related to the middle aged and elderly directly. Also, family members should give extra concern towards the adjustment of attitude toward the empowerment aging of person to ensure positive attitude in coping with aging. The reduction of Internal locus of control can be done by always given them chances to listen and express their opinions among others via many ways such as online channel and the establishment of activities in various organizations. These will essentially help to ensure that elder can learn and adjust their personal believe to match with the reality as much as possible, gain understanding others, reduce their Internal locus of control, help elderly develop good attitude towards aging empowerment. Moreover, providing training about aging empowerment knowledge in organizations can be done in numerous ways such as given away leaflets and beneficial information.

Developing Aging empowerment in various aspects; Qualitative health can be developed by providing knowledge about aging empowerment, internet and social media accessibility so that elderly can receive online information. In addition, providing the essential of internet and social media usages training may be established for elderly. Social engagement in middle aged and elderly can be done by adjusting their attitude towards aging empowerment for better coping with aging, reduction Internal locus of control can be done by providing knowledge about aging empowerment and provide social support and appreciation to encourage better self-esteem and self-value. Setting up each elderly a role in activity establishment to reassure their abilities will encourage their will in attending furthermore social activities, this will lead to the better aging empowerment. For greater view in security and safety aspects, adjusting attitude, providing training towards aging empowerment and can be done similarly to the development of aging empowerment in overall. These will ensure qualitative life when they reach to their elderly stage.

**Suggestion for next research**

1. Conduct further study in other Indicators which may have possible association to the aging empowerment that can help better understanding to encourage various supportive ways about aging empowerment.

2. Conduct experiential research or creating a supportive aging empowerment program by the used of indicators from this research to investigate if there are improvement in aging empowerment and better coping in post-retirement or not.
(3) Conduct study from other target groups for example early adulthood or Elderly, also other target groups with mixed aged for diverse information and research result close to reality.

(4) Study about indicators that affect towards aging empowerment of population in other areas and comparing the results between the indicators of city and urban to truly understand which indicators effect the aging empowerment of Thai citizens.
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Contact email: Parimprimpn@gmail.com
The Effects of Adversity Quotient Development Program on Stress in Mutthayomsuksa 3 Students in Bangkok

Unchalika Prakaew, Srinakharinwirot University, Thailand
Chanya Leesattrupai, Srinakharinwirot University, Thailand

Abstract
This research has the following objectives: 1) To compare adversity quotient (AQ) in Mutthayomsuksa 3 students before and after joining the AQ development program. 2) To compare stress in Mutthayomsuksa 3 students before and after joining the AQ development program. 3) To study the effects of the AQ on stress reduction in Mutthayomsuksa 3 students. The participants in this study were 90 Mutthayomsuksa 3 students in Bangkok area. The material and measurement used in this research were: 1) AQ development program 2) Adversity Quotient Skill Scale ($\alpha = .86$) and 3) Perceived Stress Scale ($\alpha = .84$); furthermore, independent sample t-test, paired sample t-test, and multiple regression analysis were used to test hypotheses in this study. The research results indicated that: 1) After 6 weeks of joining the AQ development program, students in the experimental group had increasing levels of AQ and decreasing levels of stress with a statistical significance level of 0.01. While the students in the experimental group had indifferent levels of AQ and stress. 2) After the participants had participated the AQ development program, their AQ levels were significantly higher than the control group and the stress levels were lower than the control group, these results can be implied that the AQ development program created by the researchers was effective in enhancing AQ and reducing stress in the participants who were Mutthayomsuksa 3 students. 3) Multiple regression analysis indicated that Adversity Quotient could significantly predict 44% ($R^2 = .440; p < .01$) of stress of Mutthayomsuksa 3 students in Bangkok.

Keywords: Adversity quotient (AQ), Adversity Quotient development program, Stress
Introduction

The purposes of this research were to study the effects of the AQ development program on stress in Mutthayomsuksa 3 students in a school in Bangkok. The background and significance of this research are as follows: The 21st century is a period of great change. However, this change has been very useful in terms of development of quality of life, optimization, work effectiveness and educational development (Beetham & Sharpe, 2013). Thailand is a developing country, therefore, it is necessary to lay the foundation for "children", who are major human resources of the country, by using an educational system as an important tool in enhancing knowledge, skills and potential development. Nonetheless, it is always commonplace to have competitions in the educational system. The advantage of competitions is to motivate children to be more enthusiastic in their own development. Conversely, the disadvantage of competitions is social inequality by commendation only towards students with good grades. This puts a lot of pressure on children and affects their lives in various aspects in both sides of relationships and adaptation (Yansomdet, 2009).

Early adolescence between the ages of 12-15 years is referred as "transition period" due to they have to face physical change to enter the reproductive age with more responsibilities based on age, new social changes, new educational institutes, new friends (Valentine, 2003), meeting various risks, pressures that may cause problems in learning and living, such as family problems, anti-social behavior, and social adjustment, befriending with roguish friends, skipping class, sex problems, and drug addiction (Sinrachatanant, 2012). Coping with problems and obstacles or change indefinitely by children, although how serious of problems or how much physical, conceptual and mental energy they used, to deal with such problems is to analyze a root of problems with morale, problem militating, intention and consideration carefully to find solutions to such problems by adversity quotient (AQ) which is an ability of individuals to respond to adversity or difficulty, tolerate the problems or obstacles. When obstacles occurred in life of individuals who possess AQ, they will be able to deal with problems. For these reasons, those who possess high AQ will actually be strong, do not despair of any obstacle and always be spirited. In contrast, those who possess low AQ will actually be defeated when they faced disappointment or difficulty (Stoltz, 1997).

Adversity quotient (AQ) refers to an ability of students to respond patiently to events or situations of difficulties, distress, or exhaustion in studying and daily life with a strong mind, patience, and a clear goal occurs from an important process called CO2RE consisting of four important components: 1) C = ‘Control’ means an ability of students to control themselves to pass events or situations of difficulties in studying and daily life. 2) O2= ‘Origin’ and ‘Ownership’ mean an ability of students to recognize and identify causes of a problem and obstacles occurred to themselves as well as understanding in their roles and responsibilities to solve problems effectively. 3) R = ‘React’ means an ability of students to assess impacts of a problem and effects to other parts of life. 4) E = ‘Endurance’ means an ability of students to perceive permanence of a problem and an ability to deal with continuity of a problem. These components can be developed by using a technique called "The LEAD sequence and stoppers!" (or LEAD) which is divided into four key techniques: 1) L = ‘Listen to your adversity response’ means an ability of students to recognize a problem and
obstacles occurred immediately. 2) E = ‘Explore all origins and the ownership of the result’ means an ability of students to explore causes of a problem and obstacles occurred and estimation of outcomes from resolution. 3) A = ‘Analyze the evidence’ means that an ability of students to analyze their abilities to deal with a problem or situation occurs and 4) D = ‘Do something’ means an ability of students to remove a problem and obstacles or situations of difficulty. For this AQ development techniques, Stoltz (1997) and Pargudtong (2008) considered that individuals can succeed by changing their habits of thinking that can be created by uninstalling original visions and creating a new form of thinking intentionally. In addition, there are researches represented that AQ development is relevant to the development of academic achievement and helps promote emotional stability, adaptation and stress reduction. Moreover, it was found that an ability to solve problems is not only correlated and positively influences learning achievement, it is also positively correlated with success in work, social skills and self-control as well (Chailangka, Panomrit, Boonmee, Kaewjaiboon, & Mekloi, 2009; Cornista & Macasaet, 2013; Saetang, 2012; Santos, 2012).

Therefore, the researchers were interested in creating AQ development program in order to reduce stress in AQ development of Mutthayomsuksa 3 students. Due to these students were in the age of adolescence completely and will create an important identity for further growth in adulthood. They had to adapt themselves and face major problems with higher stress than other early levels of Mutthayomsuksa. As these reasons, they had to prepare for high school entrance examination, decided on a career and were concerned about adapting themselves to new friends and places. There are researches from around the country including Bangkok that affirm about the stress of students in this class level (Chinapong, 2013; Laohasurayotinom, 2010; Wiset, Pengsangiam, & Sutthawatnatcha, 2014). It is consistent with the findings of the researchers from the survey conducted in the school that was collected the data. It revealed that Mutthayomsuksa 3 students had high stress levels in consequence of the reasons mentioned above. Therefore, it is necessary to find solutions for such problems. Recent researches had studied and developed AQ of adults mainly, so the AQ development program was not appropriate for samples of early adolescences as it should. Also, there was no research studied about AQ development program for stress reduction directly. There were researches related to correlation between two variables only. Hence, the researchers thought that the AQ development program that was directly developed to resolve the problems and to be appropriate to the samples will be one of the solutions to resolve stress problems as mentioned previously. Thus, the researchers required to take the potential of AQ to be adopted for maximum benefit as well as to reduce stress on learning and living, including to be a way to raise a level of success in every life aspect in the future as well.

All the documents and researches can be used as evidence to support the researcher's ideas in the development of AQ development program that affects stress in Mutthayomsuksa 3 students as below.
Methodology and Methods

Participants

For determining the sample size in this research, the researchers calculated by using G*Power (Faul, Erdfelder, Lang, & Buchner, 2007) with power of test of 0.80, medium effect size of 0.50 and statistical significance of 0.05. The sample was selected in a total of 84 people. The researchers increased the number of groups up to 10% to reserve for data loss so that the total sample size was about 90 people who were Mutthayomsuksa 3 students in Piboonprachasan School, Bangkok, who willingly participated in the research program and submitted requests to instructors and coordinators. The researchers performed a simple random sampling from student IDs by using a computer program and took them to enter the research methodology in form of Randomized Block Design to get 45 participants in the experimental group for AQ development and 45 participants in the control group.

Data collection and Data analyses

There were two types of research tools including AQ development program and data collection tools divided into three parts: Part 1) Personal data questionnaire 2) Perceived Stress Scale - The researchers developed from the Perceived Stress Scale (PSS) by Cohen, Kamarck, and Mermelstein (1983) and Stress Questionnaire Mingkwan (1999) consisted of 14 items related to the feelings of the participants in the past month. The Corrected Item-total Correlation (CITC) ranged from 0.30 - 0.65 and the Chronbach’s Alpha ($\alpha$) was 0.84. 3) Adversity Quotient Skill Scale developed from Kambannarak (2008) and Stoltz (1997) consisted of 28 items in all four AQ aspects, CITC ranged from 0.31 - 0.71 and the Alpha value was 0.86.

All measurements were characterized by 5-point rating scales with positive and negative statements and were checked the quality by evaluating Index of Item Objective Congruence (IOC) by three experts. The revised measurements were tried out with 60 Mutthayomsuksa 3 students who were not the sample in the experiment conditions. The results were brought to find out the entire reliability of all questionnaires by using Cronbach's Alpha Coefficient.

The AQ development program created by the researchers based on ‘LEAD’ techniques (Kumbannarak, 2008; Stoltz, 1997) by using multi-methods such as lecture, leaderless discussion, watching video clip, small group activities, board and puzzle games. The data was analyzed by descriptive statistics (mean and Standard deviation), independent
sample t-test, paired sample t-test, and multiple regression analysis were used to test hypotheses in this study.

**Results**

1) The sample group consisted of Mutthayomsuksa 3 students in a total of 90 whose average age of 15 years and 2 months. The majority of the students were 54 females, accounting for 60% and 36 males, accounting for 40%.

2) Before joining the AQ development program, participants in experimental and control groups had both AQ and stress moderate level, but after joining the AQ development program the experimental group had a high level of AQ and low level of stress while the control group still had AQ and stress in moderate level.

3) The participants in the experimental group who joined the AQ development program significantly had a higher level of AQ and lower level of stress. While the participants in the control group who did not participate the AQ development program showed no difference in both levels of AQ and stress.

4) After the participants in experimental group had participated the AQ development program, they had a statistical significant higher level of AQ than the control group and had a lower level of stress than the control group (see figure 1).

![Figure 1. The levels of AQ and stress of the experimental and control groups before and after joining the AQ development program.](image)

5) Multiple regression analysis indicated that Adversity Quotient could significantly predict 44% ($R^2 = .440; p < .01$) of stress of Mutthayomsuksa 3 students in Bangkok (see table 1).

**Table 1**

<table>
<thead>
<tr>
<th>Variable</th>
<th>$b$</th>
<th>SE</th>
<th>$\beta$</th>
<th>$t$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>constant</td>
<td>6.07</td>
<td>.39</td>
<td></td>
<td>15.65</td>
<td>.000</td>
</tr>
<tr>
<td>Adversity Quotient (AQ)</td>
<td>-.96</td>
<td>.12</td>
<td>-.66</td>
<td>-8.32</td>
<td>000</td>
</tr>
</tbody>
</table>

$R = .664 ; R^2 = .440; R^2_{adj} = .434 ; F = 69.25; p = .000$
This was consistent with the research assumption that the AQ development program could help enhance AQ in Mutthayomsuksa 3 because the researcher used multi-methods and multi-activities in this program which could help to improve the AQ concepts, skills and rise an attention of the participants. When participant was facing problems and learned how to solve problems by analyze the cause of that problem, try to seek his/her own potential to get over that problem, think positive, and be patient.

**Discussion and Suggestions**

From the results, the AQ development program which developed by the researchers was effective in enhancing AQ and helping reduce stress in the participants who were Mutthayomsuksa 3 students or early adolescences. In conclusion, higher AQ significantly had effect to reducing stress level.

This was consistent with the research assumption that the AQ development program could help enhance AQ in Mutthayomsuksa 3 because the researchers used multi-methods and multi-activities based on developmental psychology, behavioral modification, trainings techniques, and AQ concepts in this program which could help to improve the participants’ knowledge about AQ and its components (Cornista & Macasaet, 2013; Santos, 2012). Following ‘learning by practicing’ principal, which could rise attention, sentiment, skills, and ability to fight with problems of the participants because when they were facing problems, they could recall how to solve problems by analyze the cause of that problem, try to seek his/her own potential to get over that problem, think positive, do not forgive, and be patient (Radhika, Samar, & Vkharia, 2007; Pargudtong, 2008; Stoltz,1997). However, before implementing the AQ development program, relevant people should start by explaining details about AQ and various elements to create an idea and basic understanding about concepts and details that allows the research participants or activities participants to gain initial knowledge prior. This will help create learning in various skills that are able to develop further effectively and quickly. However, there are limitations on the duration of implementing this research so that the participants may not be able to learn to enhance their AQ substantially, especially in terms of positive thinking towards impact (Reach: R) which requires time to develop more than other aspects. Therefore, those who want to implement the program should have a time allocation that is conducive to learning and skill development fully or should design and adapt the form of activities to suit the period of time and the nature of the sample at any given age onwards.

This AQ development program could be found that it contributed to stress reduction in overall students or early adolescences effectively to a certain extent because when people were facing the problem and couldn’t solve it immediately, they would feel that they lack of abilities, could be pessimism, and tried to shutdown themselves or avoid from that problem. In contrast, when they had high level of AQ or knew how to get over the problem, they would reducing their stress and anxiety feelings (Aldwin, 2007; Loprinzi, Prasad, Schroeder, & Sood, 2011). Therefore, it may be informative or guidelines for those involved in adaptation to training, development, creating a curriculum or policy to help reduce the stress of people in this age who may be facing learning problems or livings in order to prevent social problems in the future. Moreover, the results of this research indicated that the AQ development program could actually help increase AQ levels and reduce stress levels. This effect might
persist for a period of time. However, it requires to be followed up periodically, such as every 3 months or 6 months, to monitor the durability of AQ and stress levels. If the levels of both variables decline, those involved may stimulate or revise enhancing AQ constantly to keep pace or empower AQ in people that will be key characteristics or living skills to overcome problems and cope with stress effectively.

There were some suggestions for further research: First, this research was conducted with the sample of Mutthayomsuksa 3 students in Bangkok who were early adolescences. Therefore, the AQ development program may be applied to improve AQ in Mutthayomsuksa 3 students in other provinces aside from Bangkok. Also, it may be adopted by modifying various sub-activities to be consistent with growth and maturity of individuals of each age, such as early childhood, late adolescence, those who are studying at the university level or those who were in a working age to develop AQ in individuals in other ages smoothly. In addition, those involved with the target group who wants to develop their AQ, such as teachers, professors and organizers, should have an opportunity to lead and conduct activities simultaneously with the researchers to gain expertise and to study shortcomings that may occur and lead to the development of AQ development program or other activities involved, such as classroom teaching, to get information about variables and to develop this skill increasingly. Nevertheless, The AQ development program can be used as a guideline for the development of AQ mutually with other psychological variables, such as self-esteem, leadership empowerment, and anxiety reduction, which helps individuals reduce problems occurred in living, studying and work to promote good physical and mental health onwards.
References


The Prevalence of Depression among First-Year Health Sciences Students at Thammasat University

Piyanud Chompookard, Srinakharinwirot University, Thailand
Amaraporn Surakarn, Srinakharinwirot University, Thailand
Ujsara Prasertsin, Srinakharinwirot University, Thailand

Abstract
This study aims to find out the prevalence of depression in first-year health sciences students at Thammasat University, Thailand. The study is a cross-sectional descriptive (Survey Research). 248 first-year students are recruited from 6 faculties. There are 2 phases in this study; a survey and an in-depth interview. The survey consists of 2 parts including personal information and questions of Thai version of Hamilton Rating Scale for Depression (HAM-D). There are 248 Health Sciences students between the ages of 17–19. 183 participants are female (73.8%) and 65 participants are male (26.2%). There are 10 participants who have major depression or 4%, 33 participants who have less than major depression or 13.3%, and 83 participants who have mild depression or 33.5%. The three most common symptoms from the HAM-D are having a guilty feeling (64.1%), have psychic anxiety (63.3%), and have somatic anxiety (58.5%). The information in quantitative in-depth interview was collected from 7 health science students who have less than major depression. Their depression experiences were categorized into 4 themes; perception, triggers, effects, and coping styles. The study findings can lead to a better understanding of depression among first-year health sciences students. Furthermore, they are useful in creating an intervention program to improve treatment of depression in the future study.

Keywords: prevalence, depression, health sciences, first-year students
Introduction

Depression is a common emotional state in general population. Regardless of age, people may experience an event or a situation in daily life that leads to depressive emotion. It is normal to occasionally feel depressed. However, it is considered unusual or malfunctional if an individual feel depressed chronically (Sitthiraksa et al., 2015) or have a distortedly negative idea about one’s self and the world when experiencing life crisis which causes the change in their expression mentally, emotionally, physically, and behaviorally (Beck & Alford, 2009) which also affects their function in daily life, such as incapability to study or work.

The prevalence study found that depression rate has currently increased continually. Similarly, WHO predicts that depression would be the most common disorder in 2030 (World Health Organization, 2012). Moreover, depression is expected to be the second most burdensome disease (Ustun et al., 2004).

The study in depression situation in Thai adolescents found that depression could be found in 6 percent of this population and found in woman twice as much as man (Sitthiraksa et al., 2015). The study of psychiatric prevalence in Thailand in 2008 reported that 2.7 percent of people aged over 15 years old had Major Depressive Disorder (Kongsuk, 2008). Also, the study of mental health disorder in medical students in Thailand who could not graduate pointed out that depression was the most common cause, accounted as 32% (Ketumarn et al., 2013).

Nevertheless, there is no studies in prevalence of depression among Health Sciences students yet. Hence, it is important to survey this population who is at-risk of depression.

Methods and data collection

This study is a descriptive and qualitative study.

Population and samples in this study are first-year students aged between 17 and 19 studying in Health Sciences in Thammasat University, Rangsit campus. The Health Sciences faculties include the Faculty of Medicine, the Faculty of Dentistry, the Faculty of Pharmacy, the Faculty of Nursing, the Faculty of Allied Health Science, and the Faculty of Public Health. There are 690 students in total. The sample size of 248 students was calculated by using the table of the determining sample size for research activities by Krejcie and Morgan.

Personal Information Questionnaire developed by a researcher is used to collect personal information. Furthermore, Thai Version of Hamilton Rating Scale for Depression (HAM-D) is used to interview for evaluating the severity of depression with 0.74 of Cronbach’s alpha coefficient and 0.87 of inter-rater reliability of Kappa. (Lotrakul et al., 1996)

Descriptive statistic is used to present percentage. SPSS statistics for Windows, version 23.0 was used for all statistical analysis.

This study is approved by the Srinakharinwirot University Ethics Committee.
Results

General Information

There are 248 participants who are Health Sciences students. 183 participants (73.8%) are female and 65 participants (26.2%) are male. As for an age, 198 participants (79.8%) are 19 years old and 50 participants (20.3%) are 18 years old.

Information about Depression

There are 10 participants (4%) having major depression, 33 participants (13.3%) having less than major depression, and 83 participants (33.5%) having mild depression. However, 122 participants (49.2%) have no depression.

As for the severity of depression in relation with gender, 10 participants with major depression (100%) are female. In a group with less than major depression, there are 23 women (69.7%) and 10 men (30.3%). In the group with mild depression, there are 67 women (80.8%) and 16 men (19.2%).

As for present symptoms, the most common one is having a guilty feeling answered by 159 participants (64.1%). 157 participants (63.3%) have psychic anxiety. 145 participants (58.5%) have somatic anxiety. Considered by gender, there are 38 men (58.5%) have a guilty feeling. 37 men (56.9%) have psychic anxiety. 31 men (47.7%) have somatic anxiety. As for female participants, there are 121 women (66.1%) who have a guilty feeling. The same number of female participants also has psychic anxiety, accounted as 121 people (66.1%). And 114 female participants (62.3%) have somatic anxiety.

The results below show the present symptoms in relation with depression severity and gender.

The most common present symptoms in participants with major depression are guilty feeling, psychic anxiety, and somatic anxiety answered by 10 people (100%) of this group.

All 33 participants (100%) with less than major depression have psychic anxiety. 32 participants (97%) have somatic anxiety while 31 participants (93.9%) have agitation.

As for participants with mild depression, there are 72 of them (86.7%) having psychic anxiety as the most common present symptom. 67 participants (80.7%) have somatic anxiety. And 62 participants (74.7%) have guilty feeling.

Qualitative Information

Qualitative information regarding depression experiences was collected by in-depth interview from 7 health science students who have less than major depression. Data analysis is also used to understand participants’ experiences. The information can be categorized into 4 parts including 1. perception 2. triggers 3. effects and 4. coping styles
1. Perception

Perception is how participants defined depression from their point of view. They described by words such as upsetting, bored, overthinking, unpleasant, unenjoyable, unhappy, gloomy, and despair.

“It feels blue. Everything is boring. It’s unhappy. Don’t feel like talking to friends. (Two – the second participant)

2. Triggers

It means the situations that lead to depression. Participants described the experiences they had that drew to depression. This can be divided into 2 subthemes.

2.1 Self-disappointment

Participants could not accomplish their expectations. They thought that they could have done something better.

“It’s about my scores for university admission. I missed only 3 points to get to Faculty of Veterinary Medicine. I felt discouraged.” (One - the first participant)

2.2 Disappointment in relationships

Participants had a relationship which did not meet their expectation. For example, breaking up, getting heart broken, arguing with friends, upset with friends, and feeling abandoned.

“Sometimes it’s because of friends. At first, we always hung out together and invited each other to join a company. But as time has passed, I feel alone. They go with other circle of friends. They have motorbikes so they can go anywhere together. Like, after school, they will leave with the group of friends. So, it’s like I’m all alone.” (Three – the third participant)

3. Effects

It is the effects that participants observed after they have depression. There are 4 subthemes.

3.1 Effects on thought

The participants described their thought when they experienced triggers. For instance, having self-blame, questioning things they did not understand, obsessing with negative thoughts like being abandoned and lack of sense of belonging, having self-criticize, and comparing one’s self to others.

“I don’t want to do anything. I have been thinking about this over and over. For example, when the class finished, my friends all went out together but I walked home by myself. I obsessed with the question why they only hung out with that circle? Why they left me alone? This thought has struck in my head while I was walking until I got home. (Three – the third participant)
“Maybe my friends don’t think that I am important to them, I guess? Because sometimes when there is an assignment, I’ll try to write it down everything for them. They will ask me to see what I write, and I’ll let the see. But why it seems that when I am useless to them, they don’t really pay any attention to me.” (Three – the third participant)

3.2 Emotional effects

The participants described their emotions when experiencing triggers. It also affected their thought as well. These emotions include sad, blue, angry, awkward, discouraged, or upset depending on the situations and the thought.

“It was sad. It’s like I didn’t want it to be like this. So, when it wasn’t what I expected, I felt sad.” (Two – the second participant)

“In a situation like eating out, if my friends don’t ask me to eat with them, I’ll become angry. Well, when they need help, I always do everything I can do for them. But when they eat something and don’t ask me to join, I’m upset.” (Three – the third participant)

3.3 Behavioral effects

When people experience depression triggers, it doesn’t only cause the effects on thought and emotions, but it also affects behaviors as well. The changes, however, are different in each person. These behaviors include staying silence, having self-isolated, crying or changing the tone of voice.

“Yeah.. I still talk. But it feels like I am not in a good mood as usual. I’ll talk with different tone of voice.” (Three – the third participant)

“In that time? I had cried for a few days” (One – the first participant)

3.4 Physical effects

Physical changes include loss of appetite, physical tense, and having sleep difficulty.

“At first, I didn’t feel like eating anything at all.” (Two – the second participant)

4. Coping styles

The situations which cause the effects on thought, emotion, and behavior make people suffer. Therefore, they try to cope with the suffering. In this study, there are 2 ways they choose to do.

4.1 Discuss and spend time with other people

The participants can talk about their distress or ask for advice. Hence, they feel better afterward. Also, they will get other people’s support as well. These people can be friends, parents, or significant others.
“When talking about my problems with friends, I felt better. So, I usually talk to friends or my family.” (Five – the fifth participant)

“I just cried. Tear streamed down on my face when I told my parents I couldn’t get into the faculty I expected. They comforted me. I told my mother about that. She said it was okay and tried to soothe me. … I also told my idol who is a writer, Nong Wongtanong. He said it was okay. He said he believed that I could make it next time. He was supportive. My depression was gone when I got his support.” (One – the first participant)

4.2 Engage in activities

Not only talking to others, but also the participants tried to cope with their difficult time by doing something to takes their mind and emotion out of the distress. They also feel that they can let things out and the obsession can be paused for a while. One of the participants mentioned playing sport.

“Sometimes when I was alone, I would watch something entertaining. So, I could stop thinking in that moment. But when I felt it again, I’d think about it over and over again. Sometimes, my dormmates would ask me to play football with them or go for a run, the negative emotion and the thought would disappear. When I play sport, have fun with friends or practice sports with friends, it is better. These negative thoughts are gone.” (Three – the third participant)

“I play sport and things like that. I like playing sport, exercising, and going to gym. It feels better. It’s like I can release something inside when I play sport.” (Six – the sixth participant)

Discussion

The study in Health Sciences students reveals that there are 4% of participants who have major depression. Similar to many studies, including the study of Lotrakul et al. (2015) stating that the prevalence of depression in children and adolescents is 2-5%. Moreover, the study of Kaewpornsawan & Tantasood (2012) in prevalence of depression and related factors in students grade 11 in Bangkok found the prevalence is 3.8%. Also, Sadock & Sadock (2009) supported that the prevalence of depression in adolescents is approximately 6%. They also found depression in woman much more than men which is similar to this study.

As for present symptoms, the most chosen choice is guilty feelings (64.1%). This is in accord with an in-depth interview. When the participants experienced situations that caused depression, their thought would change into “self-judgment” and “self-blaming”.

Conclusion

There are 4% of Health sciences students who have major depression. 13.3% of participants have less than major depression, 33.5% have mild depression, and 49.2% have no depressions. The three most common symptoms are having a guilty feeling (64.1%), having psychic anxiety (63.3%), and having somatic anxiety (58.5%). And
the qualitative information shows 4 themes of participants’ depression experiences including perception, triggers, effects, and coping styles.

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Contact email: pchompookard@gmail.com
Family Communication Patterns which Influence Bangkok Grade Seven Student’s Life Skills

Supak Tanamit, Srinakanrinwirot University, Thailand
Chanya Leesattrupai, Srinakanrinwirot University, Thailand
Pinyapat Paisai, Srinakanrinwirot University, Thailand

Abstract
The purposes of this study were 1) to measure the life skills level of each Bangkok Grade Seven student. 2) To measure family communication patterns of each Bangkok Grade Seven student. 3) To study the ability of each family communication pattern to predict life skills. The samples of the study consisted of four hundred and seventeen in Bangkok, dividing the school samples into three groups, according to their subordination. The data was collected by two rating-scale questionnaires: life skills and family communication patterns assessments. Life skills assessments consisted of four domains: self-awareness and self-esteem, problem solving, stress management and interpersonal relationships. The family communication patterns assessment were divided into four different patterns: laissez-faire, protective, pluralistic and consensual.
The results were concluded as follows: 1. Grade seven students in the Bangkok school district had life skills in terms of solutions, stress management and interpersonal relationships at a high level, with on in average and life skills such as in self-awareness and self-esteem at a low level on average 2. Grade seven students in the Bangkok school district had a Lasses-Faire family communication pattern at the highest level. Consensual and pluralistic were also at a high level on average while protective was at a low level on average 3. The best family communication pattern for Grade Seven Students in the Bangkok school district was laissez-Faire family communication pattern

Keywords: Family Communication Patterns, Adolescence, Life Skills, Thailand
Introduction

Current social status Western cultures that focus on material development have a greater role and influence in the way they live. The need to create a social position, economic competition and survival in society occurs in most people's thoughts and feelings today. The competition is high in education, economy and living. Including the advancement of communication systems. That affects many social changes in this situation, especially in young children who a fast-reach and changeable group. Mimetic behavior Due to high emotional state. Emotional maturity is not complete. There are confusion in putting their own roles, lack of coping skills, self-understanding and experience. They have mental health problems, such as anxiety with changes in the body, practice with friends or protection from social harm (Nisita Aungkul, 2009). These problems are also caused by the pressure that results from the lack of clarity in their thinking, lack of perspective on decision making and problem solving, weakness, lack of readiness for adaptation in order to shape the way of life in society happily, lack of ways to deal with emotions and stress and lack of critical thinking. Based on the statistics on child and youth indicators found that the problem of adolescents is as follows, 1) using alcohol 2) Using Social Media 3) Pregnancy in school 4) drugs use. From such a problem occurred over the past 10 years, educators and public health have focused on this issue. By trying to find a way to immunity to prevent serious problems. Because it is a cause and sustainable solution. One concept that has evolved and expanded widely is to build and develop "life skills" (Yongyuth Wongpiromsawat, 2002)

Life skills are the concept started by the World Health Organization (WHO). They provide the definition of life skills as being able to adapt and behave properly, enabling the person to manage the daily challenges appropriately. In the child's ability to face such pressure. Need to be trained in the basic ability of the person to adapt and choose the right path to life, facing everyday challenges, including the development of life skills, enables people to be able to analyze information. Evaluate situations helps to realize their own pros and cons, understand the requirements, difference of self and others, ability to deal with problems, to analyze, choose, and make decisions correctly, can express their desire for recognition of their rights. By maintaining good relationships with other people. It also can handle emotions and stress properly. Life skills will support self-efficacy, self-confidence and self esteem. Life skills development will make people stronger and can adapt to difficult situations with good mental health. People with good life skills will have the right behavior. This is a desirable behavior of society (Pornthip Wachiradilok, 2001).

For Thailand, Office of the Basic Education Commission Ministry of Education (2008) given the meaning of life skills that Life skills are the ability to live, to adapt to society. And Ministry of Education also focuses on life skills by strategizing and enriching their living skills. To focus on developing learners to be good, wise, happy, have the potential to study and career, knowledge, ability, communication, thinking, problem solving, technology use and life skills. This is in line with the 21st century skills-learning guidelines (Ministry of Education, 2012) the emphasis is on the development of life skills. To emphasize the foundation for the development of children and youth to be equal in ASEAN. And in the current teaching and learning, it is important that students lack the skills they need to learn to reduce their time to learn
more in core curriculum. For the students to have more practice. Both playing music, playing sports, drawing, enhancing professional skills and other skills. These elements are an important part of life skills development. There are 3,831 pilot schools participating in the policy in 2015. In addition, the Office of the Basic Education Commission It has created a life skills test for students at various levels, so it is evident that life skills are a necessity for students. The key to life skills development is family and communication. The family is considered to be the institution that shapes the behavior of children. As well as training to adapt, emotional awareness of oneself and others. By learning the experiences that children get throughout the early years. It influences the behavior and individuality of the child. Until adulthood (Salovey and Mayer, 1997). Especially in Thai society Thai people are attached to the family until old. It can be said that Thai families play an important role in the development of children very much because the family is the smallest and the first society of a child born to love, warmth from family members. In addition, families are a great opportunity for children expressions of feelings and behaviors if you can talk to exchange information.

Families with good communication will also have good family relationships because of the good relationship. Family members come from positive communication. It is a communication that makes a good feeling. Have a good family understanding. But in the current situation, parents have less time for their children to earn a living in family rearing. As well as technology devices such as TVs, computers, and mobile internet, MP3s are one part that makes family members less time-consuming. Less communication between family members. It may negatively affect family relationships. Because the amount of communication is directly related to the development of interpersonal relationships (Tiranun Auchsiriwongse, 2004). And it can cause communication problems in the family is family members lack complete communication between each other. There is no telling of your feelings to others straightforward. Cause a family conflict. This will result in family problems followed. Families lacked good communication. This results in poor family relationships. And family communication problems are most likely to be found in families with young children (Atwater, 1992). Due to the nature of adolescence is the age of physical, emotional and social changes. It's the age that needs independence. And anti-adult concepts I want to try new things. They never made so often have problems adjusting. While parents cannot adapt to the change of children. Parents continue to use parenting methods. Contact with children as well as when they are young children, such as instructing children to follow or keep watch and no chance of freedom of thought and decision (Sriruen Kaewkwan, 2002) therefore there is always conflict in the family. And from the study of Siriporn Poolsure (2006) it is found that there is more communication in Thai families today. Adults have stress Children have stressed. But adults take those stresses down at the kids. Make talk, communicate and do not understand each other because adults want to talk alone. Communication Styles of Thai Families Often one-way communication, such as one parent speaks. The children have no opportunity to comment.

Family communication will be one more thing beyond understanding. That is the special feeling that comes from love, the bond between the parents which is the added fiber. Beyond what we want to communicate. Another observation is parents rarely use body language that expresses love for children. But use speech instead of love. Which is not enough Communication in the form of gesture language, such as
touching, embracing, holding hands, which helps to create a sense of stability for the child (Vinyadda Piyasilp, 2010).

Communication with teens Parents need patience, understanding and giving opportunities for children to express their feelings and accept them. When children have problems or something that causes unwanted behavior. Children should talk or consult with their parents. By parents as good listeners. The way to communicate with children requires two-way communication. The key to communication is to tell the parent's feelings about the problem rather than teaching or blaming the child. Because telling a feeling does not cause controversy. Telling what parents want to happen instead of telling them what to do. The child will feel ordered to resist. And asking the children's opinion shows that parents listen and accept the child. Communication in this way will make the child know the reason. Have a compromise and maintain popularity in the parents. These qualities are especially important for adolescents to develop mature, emotionally stable adults, a sense of self-esteem, the ability to deal with various problems encountered. These elements are an essential part of developing a person's life skills.

So I’m interested to measure the life skills level of each Bangkok Grade Seven student. As follow: self-awareness and self-esteem, problem solving, emotional and stress management and interpersonal relationship. And in addition to measure family communication patterns of each Bangkok Grade Seven student. As follow: Lasses-Faire, Protective, Pluralistic, and Consensual. And to study the ability of each family communication pattern to predict life skills. The results of this study can be used as a way of describing the patterns of family communication and life skills in each of grade seven students in the present society. Including basic information for use in the development of life skills of adolescent children.

**Population and Sample**

Population and Sample: Population is Student grade seven in Bangkok. Sample is Student grade seven in Bangkok totality four hundred seventeen dividing the school samples into 3 groups according to their subordination as follows:

1) Schools under the Office of Basic Education Commission – OBEC
2) Schools under the Office of the Higher Education Commission – OHEC
3) Schools under the Office of the Private Education Commission – OPEC.

In subordination OPEC dividing the school samples into 2 groups because OPEC are only boy school and girl school. Step for sampling is 1) Select district which have 3 group according to their subordination. From all 50 districts of Bangkok were found to have 6 districts with all 3 groups according to their subordination. And sampling. 2) Simple Random Sampling: Sampling 1 from 6 districts and get Dusit district. 3) Stratified Random sampling one school from OBEP and OHEP. And simple two school from OPEC

**Research instruments**

The data was collected by two rating-scale questionnaires:
1. Life skills assessments consisted of four domains: self-awareness and self-esteem, problem solving, emotional and stress management and interpersonal relationships. The reliability of each domain are .409 .613 .624 and .675 respectively.

2. The family communication patterns consisted of four domains: laissez-faire, protective, pluralistic and consensual. The reliability was .393 .796 .754 and .576 respectively

Pearson Moment Correlation and Multiple Regression Analysis methods were utilized for the data analysis.

Conclusion

The results were concluded as follows purposes as follow

1. To measure life skills level of each Grade Seven Student: Grade seven students in the Bangkok school district had life skills in terms of problem solutions, emotional and stress management and interpersonal relationships at a high level and life skills such as in self-awareness and self-esteem at a low level.

The results showed that students grade seven had life skills in problem solving, emotional and stress management and interpersonal relationship with others in a high level and life skills in self-awareness and self-esteem is low. The results of the study are consistent with the current situation of children and adolescents because in today's society, it is a highly competitive society, both in terms of studying economics and living. Adolescence must learn to solve problems in various situations. Include pressure stress, which is the result of competition. It is a pretext for children to learn to manage the emotions and stress that occurs right (Nithi Ewisriwong. 2015). If problem solving is handled dealing with emotion and stress not right it may affect the relationship between others. In this group of adolescence. According to the social development, it is the age that attaches importance to the surrounding people, such as friends or other sex partners. In addition to this development, it will be the age of intellectual development. It is the age of abstract think and analyze. There is an adult model. It can solve problems in particular, adaptation in today's society in situations where the child is practicing a problem-solving experience in order to be self-reliant (Pranout kalchin. 2006). So it is possible that these teenagers have life-skills to solve problems. Life skills in emotions and stress management, interpersonal relationship with others are at a high level.

Life skills in self-awareness and self-esteem were found to be at a low level. The results are consistent with the current situation, as evidenced by the various news reports presenting some teenagers' offenses and inappropriate behavior or suicide because they think that they cannot learn like other friends including inappropriate behavior. This may be because the age is like analytical thinking. Like solving problems manually. But in this age, it still requires adults to guide the decision because of this age, children may use emotion in decision-making rather than logic. Consistent with the hall (G. Stanley Hall, 2006) saying adolescence are storm and stress which show expresses anger at the intense expression. This is one of the characteristics of this person. Including the most unusual form conditions. That often interfere with normal functions. It is an agitated state. This leads to worse physical and mental degradation. The state of Strom and Stress that occurs is a distress
Long-lasting intense emotions are dangerous signals and will affect many other things. It can be seen from the statistics of suicide in adolescent children. (Department of Mental Health. 2015) there are 852 suicides in Thailand, or an average of 170 people per year. In 2014, Thai youth aged 15-19 years had a suicide rate of 3.43 per 100,000 populations. Suicide in adolescents is a problem of depression. Which cannot face to consult anyone. No one understands and listens. May result in feelings of hopelessness. Self worthless have suicidal thoughts. If you have ever seen the news of suicide, the behavior may be imitated. This behavior is due to the fact that adolescence are left alone. Being abandoned by parents to care including overly addictive technology. In addition, self-awareness and self-esteem are skills that require self-critical thinking in many aspects both good and bad it also requires exposure to other people's views on themselves. This will make the adolescence understand and accept things. The skills in this field can develop to full potential when young children receive guidance from the family (Thanya Buppavetsa. 2001) but from the current state of parenting, there is family communication that is not promoting life skills, self-awareness and self-esteem. The level of self-awareness and self-esteem of adolescents is low.

Life skills it is the human ability to learn from the environment. Create experiences in thinking and managing yourself be it self-awareness and self-esteem have a positive mindset contributes to self-esteem. When problems arise, they are thinking and deciding to solve problems themselves, not to discourage the obstacles to lead to a defined goal. Creating a safe, independent atmosphere teaches children the greatest self-help. Opportunity for children to express themselves. This will make children confident, dare to decide, these will help encourage children to develop appropriate life skills (Prappen suwan. 1998).

2. To measure family communication patterns of each Bangkok Grade Seven student: Result found that Grade seven students in the Bangkok school district had a lasses-Faire consensual and pluralistic were also at high while protective was at a low level.

The results of the study can reflect the state of the modern family in Thai society. That has changed over the last 20 years, which has been influenced by social and economic oppression. The focus on material development has a greater role and influence in the way of life. The need to create a social position, economic competition and survival in society occurs in most people's thoughts and feelings today. The competition is high in education, economy and living. Including the advancement of communication systems. That affects the change in many aspects of society, which in turn affects children (Department of Mental Health. 2004). Parents do not have time for children and neglected to teach or lack of communication between family members (Supaluck Jantaranchitkasem. 2003). This makes it the most liberal type of communication in the family. And minimal protection. In addition, the study also indicates that the family also has an open and compromising form of family communication. So, it can be seen that in the sample society, there are three forms of family communication:
Larissa-Faire, Pluralistic, Consensual

3. To study the ability of each family communication patterns to predict the life skills: lessees-fair family communication patterns, it is an important model for predicting life skills in all four aspects. But from the study, it was found to be less predictable.
Due to the measurement of each family communication style. There is no metric that is linked to four life skills, so each family communication style predicts little or no when considering liberal family communication style. This is a form of family communication that allows children to express their opinions fully. The children are not recommended. Preaching there is no regulatory framework or enforcement. As a result, children must learn to adapt. To be accepted by friends and people around. Children also need to know and understand themselves and others. Ability to think and make decisions to solve problems manually, have self-esteem and have more good relationships with others. (McLeod, Chaffee and Wackman, 1975). As the concept of Kantor and Lehr (1975) that said, Leases-fair family communication it contributes to the development of intellectual, emotional and social development, promotes coping with family activities. Make students learn a variety of lifestyles. This makes the students more adaptable to life in society.
References


Contact email: Modsupak@gmail.com
The Implications of Japanese people’s Cross-cultural Social Skills in Turkey: Forming Relationships with Turkish Muslims

Sachiko Nakano, International Students Center, Yamaguchi University, Japan
Tomoko Tanaka, Okayama University, Japan

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Abstract
This study aims to investigate the cross-cultural social skills adopted by Japanese people in Turkey to construct satisfactory interpersonal relationships with Turkish Muslims. In semi-structured interviews, 18 Japanese people living in Turkey were asked about their coping strategies to overcome interpersonal difficulties (Nakano & Tanaka, 2016) and behaviors to construct good relationships. Responses were summarized using the KJ method. The results indicated that subjects used two coping strategies. The first was cognitive, namely understanding and tolerating cultural and religious norms and characteristics or differences. The second was behavioral, which entails behaviorally accommodating these characteristics and differences through observation and mimicry. The content of these coping strategies can be classified into three categories: 1) Religious norms, 2) frank self-expression, and 3) behavior as a manner or common sense, and eleven sub-categories including discussions about religion, consideration of religious practice, individual private space, and greetings. Seven native Turkish people perceived these coping strategies and behaviors as being effective and viable. Conclusively, this study was able to identify specific social skills that proved effective in interpersonal relationships with Turkish Muslims.

Keywords: Japanese people in Turkey, cross-cultural social skills, forming relationships with Turkish Muslims
Introduction

In 2014, 2,049 Japanese people were living in Turkey. There are many “Japanophiles” in Turkey: 83.2% of Turkish people are friendly towards Japanese people and interested in Japanese culture (Ministry of Foreign Affairs of Japan, 2014). More than 90% of the Turkish population is Muslim. Muslims have specific religious needs and behavioral patterns, which differ from those of the Japanese and affect their cultural adjustment. As such, the Japanese have experienced some interpersonal behavioral difficulties when interacting with Turkish Muslims (Nakano & Tanaka, 2016a). However, it is unclear which coping strategies can help them overcome their difficulties and which cross-cultural social skills they need to develop to form relationships with Turkish Muslims. To investigate the cross-cultural social skills used by Japanese people in Turkey to construct satisfactory interpersonal relationships with Turkish Muslims, 18 Japanese people living in Turkey were asked about the coping strategies they used to overcome interpersonal difficulties (Nakano & Tanaka, 2016a) and about the behaviors that help them form good relationships. Seven native Turkish Muslims were asked about the efficacy of these coping strategies.

Methods

Participants

The informants were 18 Japanese people living in Turkey (9 in the west and 9 in the center; 3 men, 15 women). They had resided in the country for a period of 1 month to 11 years. The average age of informants was 34.6 (SD= 9.07) years. Participant characteristics are shown in Table 1.

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<tr>
<th>Informant</th>
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Table 1 Characteristics of informants

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**Procedures**

Semi-structured individual interviews were conducted, each lasting from one to two hours. Informants were first asked to state their attributes (e.g., “How long have you stayed in Japan?”; “What is your occupation?”; “How old are you?”). Following this, informants were each asked to describe their experience in Turkey, especially that pertaining to interpersonal behavioral difficulties (e.g., “How would you describe your relationships with the Turkish Muslim people around you?”; “Are you dissatisfied with Turkish culture or the behaviors of Turkish Muslim people?”). After these questions, they were asked about coping strategies to overcome their difficulties and social skills to construct relationships with Turkish people.

In this paper, we report data on their social skills and coping strategies as cross-cultural social skills in Turkey. Informants extensively discussed concerns related to life in Turkey. Interviews were recorded with a voice recorder with the informant’s consent and later transcribed for analysis. Informants were informed of the purpose of the study and assured that their privacy would be kept confidential. We obtained informed consent from all informants before the interviews.

**Analysis**

To identify cross-cultural social skills in interpersonal behavior, we analyzed informants’ comments using the KJ method (Kawakita, 1967), a bottom-up method employed to form new concepts from the data gathered. Their comments were sorted according to units of meaning. First, we extracted segments of the transcribed narratives corresponding to points in the interviews during which informants discussed their skills to establish relationships with Turkish Muslims. Second, all information was written on individual cards. The cards were shuffled, spread out, and
those containing similar content were grouped together. Following this, a title was given to each group and placed on the group of cards. This process of grouping was repeated to further divide the primary categories into secondary categories.

**Results and Discussion**

In total, 296 segments were obtained from the analysis of comments of international Japanese people living in Turkey. The number averaged at 16.3 (SD = 3.64) per informant. The results indicated that the subjects used two coping strategies. The first was *cognitive*, whereby they attempt to understand and tolerate cultural and religious norms, characteristics, and differences. The second was *behavioral*, whereby they behaviorally adapt to these characteristics and differences through observation and mimicking. After the analysis, these cross-cultural social skills were classified into three categories: *behavior in terms of manners or common sense, frank self-expression*, and *religious norms*. These are further detailed in Figure 1.

The first category was *behavior in terms of manners or common sense*, which comprises three sub-categories: *order of observance, social conventions*, and *greetings*. Japanese people in Turkey use coping strategies as skills to cover the cultural gap to develop relationships at social occasions and as a way of greeting. We explain the sub-categories below by using informants’ descriptions to ensure easier understanding.

*Order of observance* refers to skills to cope with Turkish cultural characteristics such as not being punctual and easily changing plans. The Japanese informants spoke about cognitive skills that entailed expecting that Turkish people might not be on time or getting rid of a sense of Japanese culture as a social skill. For example, they described specific actions as setting the time of a meeting slightly earlier, giving up Japanese standards, not making plans too early, not setting a specific time for a meeting, not confirming meeting times, or repeatedly making promises. An example of the narrative is provided below.

> It is better to set a meeting time well in advance. I always say that the meeting time is a little earlier. For example, I sometimes say it is one hour earlier, because I do not want to be irritated when they arrive late. This skill prevents me from being irritated. (Informant A)

The skills concerning *social conventions* include how to behave on social occasions. Specific behaviors indicated are expressing when wanting to leave without hesitating, acting welcoming even if uninvited friends of friends arrive, accepting invitations as much as possible, having tea with others, inviting someone over if invited, or giving reasons and excuses if wanting to refuse an invitation. Turkish people have the habit of frequently drinking chai tea. Therefore, a Japanese informant recognized having tea together as an important change to form relationships with Turkish natives.

> I think the best opportunity for making friends is having chai tea or coffee with them. I was invited many times: every day, every time, everywhere when meeting someone I am asked, “Would you like chai tea?” even when meeting the first time. This means...
“welcome to our country,” so drinking chai tea together is not like in Japan. (Informant Q)

In addition, Turkish people prefer expressing their feelings honestly. If wanting to refuse an invitation, an excuse is needed, because this indicates that you wanted to go, but could not.

Greetings refer to skills regarding behavior when greeting others. Because the Japanese do not generally hug, kiss, or shake hands as a greeting, some become confused (Nakano & Tanaka, 2016a). They therefore needed to acquire social skills to appropriately greet Turkish people. Specific strategies cited included refusing to shake hands with or hug members of the opposite sex who are not family, following other people’s ways of greeting, and greeting people every time they are met. Examples of the narratives are shown below.

You usually do not hug people of the opposite sex, unless they are your family or a relative. I sometimes do not touch hands and shake hands depending on the case. If I hug or shake someone’s hand, I may make him or her uncomfortable. In contrast, I may also make someone of the opposite sex think strange things like I love them. (Informant G)

I think one can also follow other people’s ways of greeting. I recommend following ways in which other people greet each other as your first step. (Informant A)

The second category was **frank self-expression**, which comprises three sub-categories: **assertion**, **close relationships**, and **individual private space**. The Japanese acquired frank expression similar to Turkish people’s assertion and distance in interpersonal relationships.

We explain the sub-categories below.

**Assertion** is a skill related to how to communicate. Specifically, it is expressing feelings and opinions clearly without expecting that they are obvious, avoiding indirect and unclear expressions, not taking the words of the other person too seriously, apologizing while making excuses if encountering problems, speaking loudly, and expressing jealousy on purpose. Communications skills such as evading ambiguous expressions and stating something gently are also learned as skills from Japanese hosts who interchange with international students studying in Japan (Tanaka & Fujiwara, 1991). A cultural characteristic of Japanese communication is using indirect expressions. Completion of a framework tends to make them misunderstand or become uncomfortable (Nakano, Okunishi, & Tanaka, 2015). The results of this study indicate that they need to acquire social skills regarding communication with Turkish people, because the cultural distance between the Japanese and Turkish cultures is large.

**Close relationships** refers to skills pertaining to how to develop and maintain good relationships. Specifically, it was described by informants as responding cheerfully when making friendly physical contact, spending time with others, making excuses to secure personal time, and using physical contact to express familiarity. Nakano and Tanaka (2016) researched cross-cultural interpersonal conflicts of the Japanese, and
reported that Japanese people felt that relationships with the Turkish were too close. If they try to develop relationships as per Japanese values, it does not turn out well. Therefore, they need ideas and coping mechanisms. An example of the narrative is shown below.

If I interact with Turkish people in a Japanese sense, we cannot make friends. They may think of me as “a cold person” or say, “you must hate me.” Japanese people take a long time to become friendly. After becoming friends, we can state our real intentions and make friendly physical contact. However, Turkish people are very friendly, very close, even when meeting for the first time. If you want to become friends, you must mimic the Turkish way of forming relationships. (Informant F)

On the other hand, additional comments noted that it is necessary not only to mimic Turkish relationships, but also to secure one’s personal time to preserve wellbeing. Therefore, Japanese people needed the skills to make time for themselves.

When I first came to Turkey, when I was invited, I would say, “Yes, thank you. Yes please,” because I thought that I had to make friends. As a result, I had no personal time at all. I got irritated: “I want time to be alone.” This is not good for forming interpersonal relationships. Therefore, we need skills to secure personal time to preserve our own wellbeing. If I refuse an invitation, I explain, “I am sorry, I have something to do concerning my job” as an excuse to not make the other person uncomfortable. (Informant B)

The sub-category of individual private space refers to the skill of protecting personal privacy and keeping a distance that feels comfortable. Specifically, informants mentioned as examples answering personal questions broadly and loosely and greeting someone if he or she stares. According to research by Nakano et al. (2016), Japanese people found it difficult that regular questions by Turkish people involved much private information. Therefore, they need skills so as not to have a wry face and to avoid such questions. Examples of the narratives are shown below.

Because I heard questions more after relationships deepen in Japan, we need the skills to reply to such questions. For example, if asked, “When do you make a child,” the answer is, “Maybe another time.” In other words, dodge the question through joking. The name of the game is practice, practice, practice. (Informant R)

The third category was religious norms, which comprises three sub-categories: consideration of religious practices, discussion of religion, and interacting using religious values. This category is a skill that corresponds to differences in Turkish Muslim religious norms. We explain the sub-categories below.

Consideration of religious practices is a skill pertaining to consideration of the religious practices of Turkish Muslims. Muslims follow religious norms and practices based on Islam, for example, eating halal food, daily worship, and observing the month of Ramadan (Shimada, 1997). Other examples include avoiding close conversations with other sexes unless they are family members and covering parts of the body in front of people of the other sex outside the family (Tanaka, 2012). The informants of this study described that consideration of the purpose so as not to bother (prevent) their religious practice is necessary during exchanges with Turkish Muslims.
Specifically, informants described skills such as checking the ingredients of food when bringing souvenirs from Japan; avoiding meeting with people when it is time for prayers; confirming religious needs, because the degree of faith varies depending on the person; wearing clothes that are less revealing when meeting; and asking if it is acceptable to drink alcohol. Examples of the narrative are shown below.

| It is a basic behavior to consider religious customs. However, the degree of religiousness differs depending on the person. Therefore, you must confirm with each person. For example, “Is there any food you cannot eat” or “How about prayers?” (Informant N) |

The category of discussion of religion is a skill pertaining to responses regarding religious topics. Specifically, informants mentioned not stating being an atheist if asked about religion, giving an excuse to avoid the result of being urged to convert to Islam, and avoiding religious topics as much as possible. According to Matsushima (2016), Japanese people tend to not recognize that they believe in any particular religion. They report that 50% of Japanese people responded that they did not believe in religion to a question on religious beliefs. Turkish people find the response, “I have no religion” strange, and may sometimes lose trust (Nakano, 2016). Therefore, it is necessary to avoid providing such an answer. In addition, informants reported that when Turkish Muslims talk to them about religion, they use a coping strategy to change the topic, which is a skill to form good relationships. It is difficult for the Japanese, who are not familiar with religion, to participate in religious discussions. Examples of the narratives are provided below.

| If they come to talk about religion, it is better to avoid the topic as much as possible. The Japanese may say, “I do not believe in religion,” which may be something impolite to say to them. Therefore, in my opinion, if discussing your religion, it may be better to answer, “I am Buddhist.” After that, you change the topic. (Informant D) |

The sub-category interacting using religious values is a coping strategy for religious values when Japanese people are involved in an exchange with Turkish Muslims. Specifically, informants mentioned various interpretations of the word “Insha’ Allah.” An example of the narrative is shown below.

| If I ask someone for something or make a promise, the Turkish Muslim answer is “Insha’ Allah,” the meaning of which differs depending on the person. It does not mean “yes” 100% of the time, so you cannot interpret it as “we promise.” You can rather interpret it as, “I hope so” and as “yes” only half the time. (Informant J) |

These skills concerning religious value and behavior are similar to the social skills of Japanese people in Indonesia used to establish relationships with Indonesian Muslims (Nakano & Tanaka, 2016b).

Based on the study, it was revealed that the skills and consideration needed to avoid misunderstandings due to differences in religious norms are required when Japanese people try to form relationships with Muslims in Islamic countries.

Finally, seven native Turks viewed these coping strategies and behaviors as both
effective and viable. Therefore, these skills could be regarded as cross-cultural social skills to form and maintain good relationships between Japanese people and Turkish Muslims.

**Figure 1 Cross-cultural social skills in Turkey to form relationships with Turkish people**

**Conclusions**

In this paper, we focused on the cross-cultural social skills adopted by Japanese people in Turkey, as related to the construction of good interpersonal relationships with Turkish Muslims. The results revealed the intercultural social skills used in their interactions with Turkish people based on culture-specific aspects of their behavior and cognition. The Japanese used two coping strategies. The first was cognitive, whereby they attempt to understand and tolerate cultural and religious norms, characteristics, and differences. The second was behavioral, whereby they behaviorally adapt to these characteristics and differences through observation and mimicking. There are three types of social skills pertaining to behavior as a manner or common sense, frank self-expression, and religious norms.

Finally, these coping strategies and behaviors were viewed as both effective and viable by seven native Turkish people. In conclusion, this study identified specific social skills that proved effective in developing and maintaining interpersonal relationships with Turkish Muslims.

**Acknowledgements**

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Contact email: s-nakano@yamaguchi-u.ac.jp
Caregiver State of Mind and Role Performing of Counselors in Foster Homes

Papatcha Klamcharoen, Srinakharinwirot University, Thailand
Ungsinun Intarakamhang, Srinakharinwirot University, Thailand
Ujsara Prasertsin, Srinakharinwirot University, Thailand

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Abstract
Nowadays, Thailand is facing a problem in orphan care. There are huge numbers of children living in foster homes with lower numbers of child caregivers. As researchers reviewed the literatures, researchers found that there were many reasons that caused this career to have a high turnover rate. This study was conducted to explore caregivers’ experiences and perceptions of their work in foster homes. The study provided information how caregivers feel about their career and how they act as counselors at work. The researcher used a qualitative research method to explain the phenomenon. In-depth Interviewing and observation are also used as methods to obtain information. As the Person-Centered Theory and the Theory of Needs are humanistic counseling models, in that these theories that examines the healthy functioning of human being, mode of living and life goals, researchers can use such theories to explain the daily lives of caregivers and how they can act as a counselor for their colleagues. The researcher used open-ended questions in interviews with six child caregivers of different ages. The results indicate that most child caregivers typically acted as a counselor when colleagues had work and family problems. They always shared their experiences with their colleagues to make them feel better as they faced the same problems. The study also found that child caregivers were proud to be parents to their children. They mentioned having a low income, but they still wanted to work full time. The researcher suggested the need for mind training with humanistic counseling to strengthen the capacity of caregivers to provide effective care for orphans and to develop the standard of living of caregivers.

Keywords: Caregivers, Child caregivers, Orphan care, Orphans, Counseling, Humanistic Counseling, Person-centered Theory, Theory of Needs
Introduction

Thailand has a problem in terms of caring for orphans. There are a lot of children who have no home to live in and lower numbers of child caregivers. Studies have also shown that caregiving is a career that has a lot of stresses and a high rate of turnover for the past decade. It is widely recognized that children are an important resource for developing countries. Both domestic and international organizations are concerned about the standard of living for children. The United Nations has been discussing children as an important issue since 1955. Children should have an opportunity to grow up in a proper environment. They should receive love and care from parents and also need physical and mental improvement. (Vilairat Hiranyasupachot; et al., 2007 : 1) As the number of orphans in Thailand increases, foster homes are directly related to orphan and child caregivers become an important carrier. (Tossapol Hiranyavong and Suriya Jeamprachanarakorn, 2012) Child caregivers act as parents of children in foster homes. They are closest to the children and become a model for children to develop their character and behavior. (Somsri Kijchanapanich, 1996). As counseling is a way to help people (McCully, 1969), it can be in a school, a workplace and other places related to people. Person-centered Theory and Theory of Needs are theories that talk about the functioning of a healthy human being, mode of living and life goals, and theories are explained in this study. The researcher used in-depth interviews and observation to obtain information from child caregivers.

Purposes of the Study

1. To explore the experiences of the caregivers and perceptions of their work in a foster home.
2. To know how caregivers feel about their career.
3. To know how child caregivers act as a counselors when they work together.

Literature Review

Counseling is the process of a counselor helping a counselee. (Brammer & Shostrom, 1952) Counseling can also help people to develop character, improve skills, solve problems and also to gain confidence (APA, 1961). The task of counseling is to give the client an opportunity to explore, discover and clarify ways of living that are more satisfying and use their resource (BAC, 1984). Counseling psychology focuses on emotional, social, educational, health-related, developmental and organizational concerns. The counseling includes a broad range of practices that helped people improve their well-being, reduce their stress levels and an increased ability to live in daily life. The process of counseling can be in almost any setting including industry, commerce, prison service, school to university, to work with variety of problems and also to work with clients who have psychological disorders, such as anxiety and depression.

Humanistic Counseling

Humanistic counseling was founded in the 1950s in the United States. The main founders of these perspectives are Carl Rogers, who created the Person-centered theory and Abraham Maslow, who created the Theory of Needs. Humanistic
counseling emphasized the ability of human beings that can achieve their daily work, talk about the functioning of healthy human beings, mode of living and life goals.

**Person-Centered Theory**

The person-centered approach was established by Carl Rogers in the 1940s and is based on concepts from humanistic psychology. Rogers believes that humans have an ability to deal with their problems without direct intervention. The person-centered approach emphasizes on the power of humans to change themselves (Tallman & Bohart, 1999). Specific goals are not imposed on clients, but the clients are the ones who choose their own values and goals. Rogers described people who are becoming increasingly actualized as having an openness to experience, a trust in themselves, an internal source of evaluation and a willingness to continue growing. The encouragement of these characteristics is the basic goal of person-centered therapy (Rogers, 1961). These characteristics provide a general framework for understanding the direction of therapeutic movement. Therapists do not choose specific goals for clients. Therapists are the only ones who deal with how to help clients to achieve their own goals (Bohart, 2003).

**Theory of Needs**

Abraham Maslow (1954) created his five-level hierarchy of needs by observing the growth and development of students. According to Maslow, most fundamental needs of individuals are for air, food, clothing, and shelter; these are survival or physiological needs. Unless these needs are met, the person cannot progress along the continuum to achieve higher levels of growth and development (Hamel, Leclerc, & Lefrancois, 2003). The higher needs of Maslow’s pyramid include safety and security, love and belonging, and self-esteem and self-actualization, in that order. Moving from survival needs to more social development needs, one of the highest levels is self-actualization, in which a person is concerned about their legacy, the needs of humankind, and how to make the world a better place for its inhabitants (Hamel et al., 2003). Every person is capable and has the desire to move up the hierarchy toward a level of self-actualization. Unfortunately, progress is often disrupted by failure to meet lower level needs. Life experiences, including divorce and the loss of a job may cause an individual to fluctuate between levels of the hierarchy. Therefore, not everyone will move through the hierarchy in a uni-directional manner, but may move back and forth between the different types of needs. Maslow noted that only one in a hundred people become fully self-actualized because our society rewards motivation primarily based on esteem, love and other social needs.

**Methodology**

**Study design**

This study is qualitative research. In-depth interviews were used to get information from the participants and used observation to identify some hidden feelings during interviews. The researcher asked simple questions about daily work activities, allowing the child caregiver to express their feelings by reexamining their own experiences and perceptions. They also asked some deeper questions about the story told by the child caregiver. The question is divided into two sections which include
introductory and main questions. The introductory questions covered the personal information about the participants, their work background and education. For the main question, they were asked about their experiences and perceptions.

**Setting and samples**

This study took place in Bangkok, the capital of Thailand. The researcher chose Baannokkamin foster home, a private organization that was founded over 30 years ago, for the interviews. There are eight child caregivers in this branch. The researcher interviewed six child caregivers provided information about their careers. One condition was that the participants had to have taken care of a child for more than five years.

**Data Collection**

The researcher collected data from six child caregivers in Baannokkamin foster home, Bangkok, Thailand. The process of collecting data took place from December 2016 until February 2017.

**Data analysis**

The study used a phenomenological approach. It is qualitative research, using in-depth interviews and observations to get information from child caregivers who have worked in foster home for more than five years. The researcher spent a lot of time in foster homes to understand what child caregivers do when working in their daily lives. As the study was conducted to explore the experiences and perceptions of caregivers regarding their work at foster home, to identify how the caregivers feel about their careers and to ask how they act as counselors when working together. The researcher divided the analysis into three topics.

1. Experiences and perceptions

There are different experiences and perceptions that child caregivers have working in foster homes. They all talked about love and care as the key of their career. Child caregivers revealed that the felt like the children were their own sons and daughters. The children came from different backgrounds, different types of families, and also had different sources for their pain. Some children lost their parents in a disaster. Some children lost theirs due to poverty. Some children lost their parents in an accident. It is not easy for child caregivers to deal with all of their pain at the same time. Child caregivers revealed that the career is their life. It is a 24 hours job and they have to sacrifice their time to take good care of children around the clock. They all came as volunteers in the beginning, but stayed because of their kind hearts until present.

2. Feeling about the career

This career required love as a base, together with understanding, sacrifice, responsibility and above all, readiness. One child caregiver said “It is not easy to be as a good child caregiver and not everyone can be”. Many child caregivers lost family member as children. They found themselves wanting to help orphans with problems and want them to have a good future. This career becomes a way for them to help children and they are proud to be a child caregiver. They talked about how they can
support society with this career. They all talked about their income which is not much, but with their warm feeling toward to children they want to work in the carrier.

3. How they act as a counselor
They act as a counselor at all times. They share things like family and work issues. As they have different issues that they have with their children, they can help their colleagues to solve problems by sharing them. Sometimes they do not know how to deal with the problem, but just talk it out together. Counseling is the process of helping two people and sometimes listening is the best way for people who are facing problems in their life.

Discussion and Conclusion

This study concerns the minds of caregivers based on their own experiences. The number of child caregivers in Thailand has decreased along with the standard of living for children. The researcher tried to examine the situation with child caregivers, understanding what is going on the minds child caregivers, how they can help their colleagues through their problems and explain it through humanistic counseling theories. Humanistic counseling theories, such Person-centered theory and Theory of Needs are used to explain the important of some counseling in the workplace. There are a lot of connections in the workplace and relationships between people always create the need for counseling. Not everyone knows about counseling, but it is a fact of daily life. The study attempted to explain how counseling works under the conditions faced by of child caregivers that result in a hard time in the workplace. From the information obtained by the researcher through interviewing, the researcher found that counseling for this career is suitable for a child caregiver. Child caregivers face with different problems while they are working. They feel deep concern about the children under their care. It becomes a job with family problems, because they feel like children are their own sons and daughters. Talking with colleagues is conversations between parents who can share similar problems about their children. Child caregivers revealed that they can help colleagues to get through their problems by sharing their problems and listening to their advice. As the key of humanistic counseling is not giving advice, but letting someone who came with problems setting their own goals, and helping them to achieve their goals, child caregivers can act as counselors for this perspective of counseling, help their colleagues by just listening to them, which they have already been doing. The Person-centered theory and Theory of Needs are applied in their conversation, but they did not realize that they are talking about it. The theories discuss healthy human functioning, mode of living and goals in life. This is a good way for the organization to introduce the theories as a way to establish a good standard of living in the workplace.

Suggestions

Suggestion for Child caregivers

1. Child caregivers should be concerned with Self-monitoring. It is beneficial for many people to beware of how they feel inside, so they can solve problems or deal with the issues in order to reduce stress.
2. To be effective counselors for colleagues or at least being a good listener. Good listening is one of the basic counseling techniques. You can help your colleagues from suffering just by being a good listener.

**Suggestion for Foster homes**

1. Develop counseling skills by providing courses about daily life, adding some humanistic counseling for caregivers to make sure that they can help each other when they face problems.
2. Provide activities for the caregivers and officers in an organization to make them feel more comfortable with others.

**Suggestion for Further study**

1. Study in different foster home systems as private and public organizations to compare the differences of the results.
2. Study in a bigger area at a national or regional level.
3. Study at different times because time differences always result in different results.
References


Tara Cavazzi, Andrew Guilfoyle, Ph.D., Margaret Sims, Ph.D. (2010). A Phenomenological study of foster caregivers’ experiences of formal and inform.
The Effect of Group Counseling Program for Developing Self-Efficacy to Adversity Quotient in Real Time Company

Jitsupang Jutavitaya, Srinakharinwirot University, Thailand
Ungsinun Intarakamhang, Srinakharinwirot University, Thailand
Ujsara Prasertsin, Srinakharinwirot University, Thailand

Abstract
The objectives of this research were to examine the effects of a group counseling program to develop self-efficacy and adversity quotient of employees in real time company. The Quasi-Experimental Research design was used in this research. The sample was a group of employees of Shop Global (Thailand) Co., Ltd., which is a 193 employee-real time company. It was divided into experimental group (n=8) and control group (n=8) which consisted of 4 women and 4 men in each group. They participated in the group counseling program for 10 sessions (1 hour 30 minutes to 2 hours per session) for 1 month and 1 week (total 20 hours). The developing self-efficacy and adversity quotient in real time company group counseling program and self-efficacy and adversity quotient test were used as research instruments and the Dependent-Sample t-test Independent-Sample t-test, the mean, the standard deviation were used as analytical instruments.

The result of this research showed that 1) the sample in experimental group who participated in the group counseling program could develop self-efficacy and adversity quotient more than those in the control group who did not participate in the program at a significance level of .01 2) after participating in the group counseling program, the sample could develop self-efficacy and adversity quotient more than before at a significance level of .01 3) the sample in experimental group could develop self-efficacy more after participating in the group counseling program for 5 weeks at a significance level of .01 4) the sample in experimental group who participated in the group counseling program for 5 weeks could develop self-efficacy more than those in control group who did not participate in the program at a significance level of .01

Keywords: self-efficacy, adversity quotient, group counseling program
Introduction

Nowadays, we cannot say that graduating from a college and getting a good job in a company can ensure that one can work efficiently and happily or one can improve his/her performance very well to fit with the organization. Due to the global rapid changes, any organizations need efficient employees whose productivity is what contributes to the growth of its organization. However, the faster the organization growing, the more problems, obstacles and adversities occur. Whether they are the solving immediate problems of managing department, achieving the sales target of the sales department, recruiting required candidates in determining the company's future growth of human resource department or growing the organization management team, they all have to face the obstacles, analyze and solve the problems. Each action can affect one’s salary increase, which means that it also affects one’s job stability. But the developing one’s ability to solve problems or adversities is not easy. (Suparee Rodsin, 2006) Therefore, those who are successful in their lives must have the ability to solve problems or adversities. Especially workers, it is necessary for them to be able to deal with the adversities or increase the Adversity Quotient in order to be successful at their jobs and lives. Adversity Quotient can be used to predict job performance, explain how well one can deal with difficulties and foresees who will exceed their expectations. Individuals with high self-efficacy are more likely to turn obstacles into opportunities; they believe they can master challenging problems, obstacles, failures or bad situations. They believe in their own ability and capability of handling situations fast (Stoltz, 1997) which is similar to Hall’s (Hall, 2000) theory, that is individuals with high self-efficacy are more likely to be successful in their jobs, they can master challenging problems and disappointments.

Self-efficacy is one of the factors that affect the success of one’s life which is one of the Social Cognitive Theory (Bandura, 1997) which is similar to Wannakorn Mohyadee’s (Wannakorn Mohyadee,2001) theory, that is self-efficacy is the behavioral factor of individual interact to determine one’s behavior. One can estimate how well one can be successful in a certain situation. Thus, Self-efficacy is related to the ability to face and deal with adversity. Individuals with high self-efficacy are more likely to find the complicated works as challenging rather than risks or obstacles. They are more likely to be eager and motivated in their own work, have high expectation of success and they tend not to give up even in the bad situations. Individuals with low self-efficacy are more likely to find the complicated works as something that they should avoid, they tend to have less confident in their ability and they are not able to deal with the situation that they are facing. They tend to have low motivation and tend to give up quickly. (Bandura, 1997)

Literature Review

According to Bandura, self-efficacy is "the belief in one's capabilities to organize and execute the courses of action required to manage prospective situations". Individuals with high self-efficacy are more likely to believe they can master challenging problems and they can recover quickly from setbacks and disappointments. Individuals with low self-efficacy tend to be less confident and don't believe they can perform well, which leads them to avoid challenging tasks. Therefore, self-efficacy plays a central role in behavior performance.
Judgments of self-efficacy are generally measured along three basic scales: magnitude, strength and generality.

Adversity quotient (AQ) is a score that measures the ability of a person to deal with adversities in his or her life. The AQ is one of the probable indicators of a person's success in life and is also primarily useful to predict attitude, mental stress, perseverance, longevity, learning, and response to changes in environment.

According to Stoltz, one’s Adversity Quotient (AQ) consists of four dimensions: CO2RE. This acronym includes Control; Ownership and Origin; Reach; and Endurance.

**Conceptual Framework**
Objectives

This research is to examine the effects of a group counseling program to develop self-efficacy and adversity quotient of employees in real time company.

Scope of the research

Population and Sample

Population

The total population in this research was 193 employees who worked in the real time company (use all electronic commerce for selling of goods and services) and they were selected by the total intrinsic Adversity Quotient scores at the 25th percentile and lower.

Sample

The sample in this research was the employees working in the real time company who got the total intrinsic Adversity Quotient scores at the 25th percentile and lower. They were selected from the population who got the intrinsic Adversity Quotient scores lower than the mean with the use of Purposive Selective and they took part in this research on their own accord. A Simple Random Sampling of 4 women and 4 men was chosen equally in both experimental group and control group. Each group consisted of 8 people and the total number of sample was 16 people. The participants in experimental group joined the group counseling program to develop self-efficacy and adversity quotient, yet the control group did not join any program.

Research instrument

1. Adversity Quotient Test
2. Self-Efficacy Test
3. Self-Efficacy and Adversity Quotient Group Counseling Program

Hypothesis

1. The sample in experimental group who participated in the group counseling program could develop self-efficacy and adversity quotient more than those in the control group who did not participate in the program.
2. The sample in group could develop self-efficacy and adversity quotient right after the group counseling program ended.
3. The sample in experimental group could develop self-efficacy more right after participated in the group counseling program for 5 weeks.
4. The sample in experimental group who participated in the group counseling program for 5 weeks could develop self-efficacy more than those in control group who did not participate in the program.
Data analysis

The sample in experimental group who participated in the group counseling program could develop self-efficacy and adversity quotient more than those in the control group who did not participate in the program.

Comparing the score adversity quotient between the experimental group and the control group who did not participate in the program. We found that the average of Control dimensions in the experimental group was (M= 3.90, SD = 0.36) higher than the control group was (M= 2.47, SD = 0.26) at a significance level of .01(t=-4.975,p<.01) and the average of Endurance dimensions in the experimental group was (M= 3.87, SD = 0.83) higher than the control group was (M= 2.45, SD=0.23) ) at a significance level of .01(t=4.645,p<.01) and the average of Reach dimensions in the experimental group was (M= 3.75, SD =0.59) higher than the control group was (M= 2.48, SD=0.18) ) at a significance level of .01(t=5.794,p<.01) and the average of Ownership and Origin in the experimental group was (M=3.31, SD=0.40) higher than the control group was (M=2.40,SD=0.41) at a significance level of .01(t=4.408,p<.01)

Table 1 Comparing the score of self-efficacy and adversity quotient between the experimental group and the control group who did not participate in the program.

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Group</th>
<th>Mean (M)</th>
<th>Std. Deviation (SD)</th>
<th>t</th>
<th>p Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>Experimental</td>
<td>3.9000</td>
<td>.76718</td>
<td>4.975**</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>2.4750</td>
<td>.26040</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ownership and Origin</td>
<td>Experimental</td>
<td>3.3125</td>
<td>.40642</td>
<td>4.408**</td>
<td>.001</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>2.4063</td>
<td>.41392</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reach</td>
<td>Experimental</td>
<td>3.7500</td>
<td>.59252</td>
<td>5.794**</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>2.4821</td>
<td>.18607</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Endurance</td>
<td>Experimental</td>
<td>3.8750</td>
<td>.83452</td>
<td>4.645**</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>2.4531</td>
<td>.3085</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

** p<0.01, (n=16)

The sample in group could develop self-efficacy and adversity quotient right after the group counseling program ended.

Comparing the score of adversity quotient in the experimental group Pre-test and Post-Test. We found that the average of post-test for Control dimensions was (M= 3.90, SD = 0.76) higher than the average of pre-test for Control dimensions was (M= 2.43, SD=0.21) at a significance level of .01(t=-4.773,p<.01) and the average of post-test Endurance dimensions was (M=3.31, SD=0.40) higher than the average of pre-test Endurance dimensions was (M=2.84,SD=0.33) at a significance level of .01(t=-2.418,p<.05) and the average of post-test Reach dimensions was (M= 3.74,SD =0.83) higher than the average of pre-test Reach dimensions was (M=2.57,SD=0.35) at a significance level of .01(t=-4.545,p<.01 and the average of post-test Ownership and Origin was (M=3.31, SD=0.40) higher than the average of pre-test Ownership and Origin was (M=2.84,SD=0.33) at a significance level of .01(t=-2.418,p<.01)
Table 2 Comparing the score of adversity quotient in the experimental group Pre-test and Post-Test.

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Term</th>
<th>Mean (M)</th>
<th>Std. Deviation (SD)</th>
<th>t</th>
<th>p Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>Pre</td>
<td>2.43</td>
<td>0.21</td>
<td>-4.773**</td>
<td>.002</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>3.90</td>
<td>0.76</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ownership and Origin</td>
<td>Pre</td>
<td>2.84</td>
<td>0.33</td>
<td>-2.418*</td>
<td>.046</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>3.31</td>
<td>0.40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reach</td>
<td>Pre</td>
<td>2.57</td>
<td>0.35</td>
<td>-4.545**</td>
<td>.003</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>3.74</td>
<td>0.58</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Endurance</td>
<td>Pre</td>
<td>2.39</td>
<td>0.40</td>
<td>-4.280**</td>
<td>.004</td>
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<tr>
<td></td>
<td>Post</td>
<td>3.87</td>
<td>0.83</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

** p<0.01, (n=16)
*p<0.05, (n=16)

The sample in experimental group could develop self-efficacy more right after participated in the group counseling program for 5 weeks.

Comparing the score of before and after of self-efficacy in the experimental group participated in the group counseling program for 5 weeks. We found that the average of self-efficacy after participated in the group counseling program was (M= 2.9188, SD = .16771) higher than before participated in the group counseling program (M= 1.9938, SD = .18275) at a significance level of .01(t=--8.187, p<.01)

Table 3 Comparing the score of before and after of self-efficacy in experimental group participated in the group counseling program for 5 weeks.

<table>
<thead>
<tr>
<th>Self-Efficacy Score</th>
<th>Mean (M)</th>
<th>Std. Deviation (SD)</th>
<th>t</th>
<th>p Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before</td>
<td>1.9938</td>
<td>.18275</td>
<td>-8.187**</td>
<td>.000</td>
</tr>
<tr>
<td>After</td>
<td>2.9188</td>
<td>.16771</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

** p<0.01, (n=16)

The sample in experimental group who participated in the group counseling program for 5 weeks could develop self-efficacy more than those in control group who did not participate in the program.

Comparing the score of self-efficacy in the experimental group participated in the group counseling program for 5 weeks between the control group. We found that the average of self-efficacy in the experimental group was (M= 2.9188, SD = .16771) higher than the control group 1.9787, SD = .21676) at a significance level of .01(t=9.701, p<.01)
Table 4 Comparing the score of self-efficacy in the experimental group participated in the group counseling program for 5 weeks between the control group.

<table>
<thead>
<tr>
<th>Self-Efficacy Score</th>
<th>Mean (M)</th>
<th>Std. Deviation (SD)</th>
<th>t</th>
<th>p Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental group</td>
<td>2.9188</td>
<td>.16771</td>
<td>9.701**</td>
<td>.000</td>
</tr>
<tr>
<td>Control group</td>
<td>1.9787</td>
<td>.21676</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

** p<0.01, (n=16)

Result

This research is based on the examination of the effects of a group counseling program to develop self-efficacy and adversity quotient of employees in real time company. The objective is to develop a group counseling program to develop self-efficacy and adversity quotient of employees in real time company and to study the effects before and after using the group counseling program to develop self-efficacy and adversity quotient of employees in real time company.

The total number of counseling programs was 10 sessions (1 hour 30 minutes to 2 hours per session) for 1 month and 1 week (total 20 hours). The first session was the orientation to introduce every participants and get them to know each other. The second session was the self-efficacy session. The third to fifth sessions were the class to develop self-efficacy according to the objections e.g. the level of difficulty at work, confidence and Generality. The sixth to ninth was the class to develop Adversity Quotient e.g. situation control ability, the cause and responsibility and effect and endurance. The tenth session was the end of the counseling program. The result of the group counseling program to develop self-efficacy and adversity quotient of employees in real time company were as follows,

1) The sample in experimental group who participated in the group counseling program could develop self-efficacy and adversity quotient more than those in the control group who did not participate in the program at a significance level of .01
2) After participating in the group counseling program, the sample could develop self-efficacy and adversity quotient more than before at a significance level of .01
3) The sample in experimental group could develop self-efficacy more after participating in the group counseling program for 5 weeks at a significance level of .01
4) The sample in experimental group who participated in the group counseling program for 5 weeks could develop self-efficacy more than those in control group who did not participate in the program at a significance level of .01

Discussion and Conclusion

The company, which its employees have work difficulties or any companies which its employees have low self-efficacy and they cannot deal with bad situations or adversities, can apply this research in order to set organizational development procedures and to develop employees to raise their self-efficacy and AQ. This research is also can be used to apply in teenage samples who are planning and choosing programs in high schools or those who are planning to study in colleges.
References


Contact email: Jitsupang_J@hotmail.com
An Accurate Estimation Method for Abilities in Online Adaptive Testing Based on Item Response Theory

Hideo Hirose, Hiroshima Institute of Technology, Japan

Abstract
Recently, universities in Japan, in particular, private universities, are inclined to accept a wide variety of students because the number of high school students is becoming smaller in contrast to the increase of the number of enrollment of students. In response to this situation, universities have been gradually providing pre-classes before enrollment, various levels of classes, or follow-up classes after regular classes. However, it becomes very difficult to serve adequate learning chances to each student because the distribution of students' skills is spreading like a uniform distribution. We may need many teaching assistants if exhaustive learning classes are required. Instead, we have developed new learning systems to assist classes, called the follow-up program systems, consisting of learning check testing, follow-up program testing, and collaborative work testing; they have been working successfully in Hiroshima Institute of Technology. In these online testing systems, we adopt the item response theory to evaluate students’ learning skills fairly. Although students’ abilities can be estimated accurately by using a large number of responses to tests, we can also obtain the estimates for the abilities accurately with the small number of responses to tests if we use a method proposed in this paper, the EM-type IRT. This can estimate the response values to the empty elements during the estimation process. The incomplete matrix can be modified to the complete matrix. We may expect that this makes the estimated ability values more reliable. This can lead us to reconfigure the class design in the early stages.

Keywords: ability estimation, item response theory, online testing, learning analytics
Introduction

To evaluate the examinees’ abilities accurately and fairly, the use of the item response theory (IRT) is considered to be one of the fundamental methods because it provides us the difficulties of the test items and the examinees’ abilities together; see de Ayala (2009), Hambleton et al. (1984), Hambleton et al. (1991), Linden et al. (1996). Once the difficulty values are obtained somehow, e.g., by using a monitor test, we can construct an adaptive online testing system which selects the most appropriate items to examinees automatically, resulting more accurate ability estimation and more efficient test procedures (Barla et al. (2010), Chang et al. (2009), Kuo et al. (2013), Mills et al. (2002), Rajamani et al. (2013), Li et al. (2011)). However, such an expectation is confirmed under the condition that the abilities of the adaptive online test examinees and those of the monitor test examinees are similar to each other because the difficulty values are static. Otherwise, calibrating the difficulty values should be required to those who show different ability values from the monitor test examinees.

Calibration of the difficulty values is often dealt with equating methods, and we have to find new monitor examinees in equating. However, it seems difficult to do that in the traditional equating because 400 samples are required even in Rasch model (Kolen et al. (2004)). In actual cases, as the number of examinees is increasing, the difficulty values measured by the monitor test will possibly differ from those assessed by the new examinees. Then, it may be beneficial to use the item response results in adaptive testing to calibrate the difficulty values in dynamic. To do that, we have to obtain the difficulty parameters from the incomplete item response matrix. However, the traditional IRT methods are incompetent to that problem.

Since the item response matrix will become incomplete, it may beneficial to deal with the incomplete matrix. Therefore, we proposed the dually adaptive online IRT testing system, where “dually adaptive” means that one is targeted to the adequate item selection and the other is to the adjustment of the difficulty values for items (Hirose, Aizawa (2014), Hirose et al. (2014), Hirose, Tokusada (2014), Hirose (2016)). This system uses the matrix completion methods which can estimate the item difficulties and examinees’ abilities altogether from incomplete item response matrices, which overcomes the problem of incomplete matrix in the traditional IRT methods. Since the new items can be added at anytime and their difficulties are optimally adjusted without equating, we no longer require the additional monitor tests to new different examinees.

Recently, universities in Japan are inclined to accept a wide variety of students because the number of high school students is becoming smaller in contrast to the increase of the number of enrollment of students. Entrance examinations are not competitive nowadays. In response to this situation, universities have been gradually providing pre-classes before enrollment, various levels of classes, or follow-up classes after regular classes. It is now common to organize such classes for undergraduate mathematics, physics, and English classes in many universities. In a similar manner, Hiroshima Institute of Technology (HIT) also provides such classes. However, it becomes very difficult to serve adequate learning chances to each student because the distribution of students’ skills is spreading like a uniform distribution rather than a unimodal shape distribution. We may need many teaching assistants if
exhaustive learning classes are required. Instead, we proposed to use new learning systems, the adaptive online IRT systems, to assist regular and relevant classes. In concert with such circumstances, we have decided to include the IRT testing systems for our university follow-up program (FP). We introduce here the case of mathematics for the FP.

**Common Item Response Theory and Dually Adaptive Item Response Theory**

In the two-parameter IRT, we assume an examinee $i$ having ability $\theta_i$ takes a problem $j$. If the examinee is successful in giving the correct answer with probability $p$, such that

$$P_{i,j}(\theta_i; a_j, b_j) = \frac{1}{1 + \exp\{-1.7a_j(\theta_i - b_j)\}} = 1 - Q_{i,j}(\theta_i; a_j, b_j).$$

(1)

the likelihood for all the examinees, $i = 1, 2, ..., N$, and all the items, $j = 1, 2, ..., n$, will become

$$L = \prod_{i=1}^{N} \prod_{j=1}^{n} (P_{i,j}^{\delta_{i,j}} \times Q_{i,j}^{1-\delta_{i,j}}).$$

(2)

where $\delta_{i,j}$ denotes the indicator function such that $\delta = 1$ for success and $\delta = 0$ for failure; $a_j$ and $b_j$ are constants in the logistic function, and they are called the discrimination parameter and the difficulty parameter, respectively. By maximizing $L$ in Equation (2), the maximum likelihood estimates for unknown parameters $a_j$, $b_j$, and $\theta_i$ may be obtained. If the item response matrix made by $\delta_{i,j}$ is complete, i.e., all the elements in the matrix are either 0 or 1, and no vacant elements exist, this kind of IRT is common and well-known, as shown on the left of Figure 1.

When the parameters $a_j$ and $b_j$ were obtained in advance, we can estimate the parameters $\theta_i$ by using these estimated parameters of $\hat{a}_j$ and $\hat{b}_j$ easily. The conventional adaptive online systems use this kind of procedure. Usually, the optimal selection of the items is done by using the information amount to each item. Just as mentioned, parameters $a_j$ and $b_j$ and cannot be revised although examinees are changed.

If we can deal with such an incomplete matrix to estimate the parameters $a_j$, $b_j$, and $\theta_i$ altogether as common IRT methods do, it would be beneficial when the number of examinees and the number of parameters increase. In such a case, we proposed to use the dually adaptive IRT testing (Hirose, Aizawa (2014), where “dually adaptive” means that one is targeted to the adequate item selection and the other is to the adjustment of the difficulty values for items. The principle methodology for this is use the matrix completion method for incomplete matrix (Sakumura, Tokunaga and Hirose (2014)). This is shown in Figure 1 on the right. In the figure, $\delta_{i,j}$ in vacant elements are provided in estimation procedure. In the Figure, numbers larger than 0 and smaller than 1 are shown.
Incomplete Matrix in Learning Check Testing

We have developed new learning systems to assist classes, called the FP systems, consisting of learning check testing (LCT), follow-up program testing (FPT), and collaborative work testing (CWT); see Hirose (2017a, b), Hirose, Tokusada, Y. (2017), Hirose, Hirose et. al. (2017). Students tackle mathematics problems using personal computers via well-equipped WiFi environment. All the students take LCT at the beginning or the end of each lecture in regular classes for about ten minutes to check if they comprehend the content of the lecture. Once students were discriminated as the candidates for the follow-up classes, they shall be enrolled to the FP classes (FPC) after regular classes. At the end of each FPC, all the members take examinations to check if the class work can compensate the insufficient part of their knowledges and skills. In the case of mathematics courses, the exam coverage becomes the contents previously learnt or before. In the FPC, in mathematics courses, the class work is taking the adaptive online IRT testing systems collaborated with peer supporters.

The learning check testing, LCT, is a kind of mini test, but the evaluation method for the LCT adopts the IRT partially in which the difficulty values are provided in advance, unlike to the common IRT method where difficulty values and ability values are unknown simultaneously. Five or six questions are prepared in each LCT. All the students in regular classes take the LCT for about ten minutes using their personal computers, that is, the test is taken online. All the questions are the same to each student, but sorted in different order. The levels of the questions are distributed
from difficult one to easy one, that is, all levels are covered to evaluate all level
students. The questions for the LCT are closed. In one semester, 15 classes are
provided, and consequently 15 LCTs are to be scheduled. Thus, the size of the item
response matrix for one subject is about (user, item)=(1000, 6), and (user,
item)=(1000, 90) in one semester.

Figure 2 shows a part of the actual incomplete item response matrix in the LCT in one
semester; matrices of two subjects (Analysis Basic on the left, and Linear Algebra on
the right) are illustrated. Elements in red mean that the answers to questions are
correct, and those in green are incorrect; vacant elements mean that no answers were
given. We cannot obtain the estimates for abilities using matrices as they are, if we
use the common IRT.

Estimation of Abilities to Incomplete Matrix using the EM-type IRT

The common IRT requires complete item response matrix. However, due to a variety
of reasons, we cannot expect such a complete matrix. We cannot obtain the estimates
for ability parameter if we use the item response matrix to one section as it is.
Because of too small item response matrix (the number of column is five or six), we
may not use the versatile EM-type IRT method, i.e., estimates of unknown parameters
may not converge in iterative estimating procedure. There is a method to circumvent such an inconvenient case. If we regard the problems in vacant elements were too difficult to solve, we may insert zeros to these elements, and then the IRT works. However, this kind of treatment might cause severe-side evaluation. This is the easiest way to find a rough evaluation. Figure 3 shows such a typical case. In the figure on the left, estimates for abilities are obtained by inserting zeros to empty elements in the incomplete item response matrix. Since we do not know the correct ability values, we cannot know the deformation effect due to such a treatment. To find the accurate effect, we need a simulation study under the condition that we know the true parameter values in advance; see, e.g., Hirose and Tokusada (2017). Instead, we compared the estimated ability values with the scores of the placement test consisting of many items; we can assume empirically that results by the placement test were reliable because they include a large number of items. Using items only in one section, the results are horrible. See Figure 3 on the right; the coefficient of correlation between those two is very small such as less than 0.4.

However, if we put together two short testing results in one matrix so that vacant elements can be also estimated in the EM-type IRT in estimating procedure (some exceptions are assumed to fully vacant row in the item matrix), the accuracy of estimated ability values increases. Although the incomplete matrix consisting of five or six column is not sufficient to work for the EM-type IRT, more than ten items may be enough to estimate the parameters. Figure 5 shows such a result. In the figure, LCT1 and LCT2 for Analysis Basic Linear Algebra are combined, respectively. The correlation coefficients are all larger than 0.65. We can see now the clear relationship between the LCT results and the PT result.

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Figure 3: Estimating result by inserting zeros to empty elements.
unanswered elements are estimated

Figure 4: Two short testing results are put together one matrix.

Figure 5: Correlations among LCTs and PT using two short testing results put together in one.
Simulation studies also support such a phenomenon. Figure 6 shows the relationships between the true ability values and the estimated ability values from the simulation results using five, ten, and fifteen items; only adaptive cases are shown. When five items are used, we observe the shrinkage effect caused by the Bayes estimation, i.e., biases are observed; however, when we use more than ten items, the biases become small enough to use. Figure 7 also shows the simulation results in the cases of adaptive and non-adaptive cases. Biases are typically observed when the number of items is five. We regard that at least ten items are required if we want to obtain reliable estimates to some extent. These simulation results assist that we should use two section LCTs together rather than the use of single section LCT.

![Figure 6: Correlations among LCTs and PT using two short testing results put together in one.](image)

Figure 6: Correlations among LCTs and PT using two short testing results put together in one.
Figure 7: Correlations among LCTs and PT using two short testing results put together in one.
Conclusion

To accept a wide variety of students, we have developed new learning systems to assist classes, called the follow-up program systems, consisting of learning check testing, follow-up program testing, and collaborative work testing. In these online testing systems, we adopt the item response theory to evaluate students' learning skills fairly and accurately. In the learning check tests, we have to obtain the estimates for the abilities accurately using very small number of items such as five or six, which may result inaccurate estimates for ability parameter. To enhance the accuracy of the estimates for ability parameter, we have proposed to use multiple sections in estimating the ability values by using the EM-type IRT. This can estimate the response values to the empty elements during the estimation process unlike the common IRT method which needs complete item response matrix.

By using the EM-type IRT estimation method for incomplete matrix consisting of the multiple section results to the learning check testing, we can obtain the more accurate ability estimates than those using incomplete matrix made by a single section. To know the learning level as early as possible, we cannot wait all the results until the end of the semester, we have to use small number of section results such as two or three. In this paper, even if only two section results are used, the reliability of the estimates for ability parameter increased dramatically. However, use of only one section incomplete matrix is sufficient to estimate unknown parameters accurately.
References


**Contact email:** h.hirose.tk@it-hiroshima.ac.jp
The Role of Identity Statuses on Freshman Student’s Decision Making in Choosing Education Degree Program

Agustina, Tarumanagara University, Indonesia
Monty Prawiratirta Satiadarma, Tarumanagara University, Indonesia

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Abstract
The development of a stable sense of self is considered to be one of the central tasks of human being. Erikson (1902-1994) explained that during normative development, the influence of experimentation and exploration in personality and vocational roles became the important aspects in constructing individual identities (Santrock, 2007). Extending this theory, James Marcia proposed four identity statuses of psychological identity development, which are identity diffusion, identity foreclosure, identity moratorium, and identity achievement. Using this theory, Marcia explained that one’s sense of identity is determined largely by crises (exploring choices) and commitments (Papalia & Martorell, 2012). It is believed that person with well-developed identity had experienced decision making period and committed to a certain choice (i.e. education degree program, occupation, sex-role orientation, and religious belief). Based on the well-known theory that adolescence is a period of identity formation, authors attempted to investigate how adolescents’ identity statuses may influence their decision making, specifically in choosing education degree program. Choosing educational degree program is important for a person since it influences the person’s career in future. Furthermore, authors will also discuss the possible factors influencing adolescents’ identity statuses and potential solutions to deal with issue of less developed identity statuses.

Keywords: identity statuses, decision making, education degree program
Introduction

Many high-school graduates in Indonesia are unable to decide their further study for they are uncertain about their area of interests (Sarwono, 2005). Psychologists, especially in big cities such as Jakarta, Surabaya, and Medan are having more clients to participate in aptitude tests, primarily in the month of January to May, to know their interests and to determine which area of educations are more proper to their potentials and personality (Sarwono, 2005). Moesono reported (in Sarwono, 2005) that high-school students did not really know what exactly they wanted, which exactly the direction of education they pursued. They did not get the information in details on the area of study they were looking for, they were not get used to find the information in details, 40% of them tended to obtain informations merely based on the information from their parents, and the rest of their decision tended to be based on risk taking behavior. They did not develop critical thinking and they did not know how to use feedback if they ever obtained them.

Decision making may not be that simple. Making decision to participate in an education program that is not suitable for a person may later inhibits the learning process. Stoner and Winkel (2003), explained that decision making is deciding to act in one single direction as a form of problem solving. Rakhmat (2012) explained that there are various forms of decision making which contained as such: (a) a decision as the result of thinking process and thus a form of intellectual effort, (b) a decision always includes choices from various possible alternatives, and (c) a decision is followed by action although it may be postponed or forgotten.

A person who has decided to attend high education in a university generally is an adolescent, the developmental stage between children and adult. Ali (2007) explained that the tasks in adolescent years consisted of adjusting the self in the developmental process whether physically or psychologically, becoming independent and getting adjusted with the social norms and values, and affirming the personal identity. Affirming personal identity determines who he or she is and what he or she wants to be. To affirm the the self identity, one must seek for working alternatives, choose one of the best possible vocation or work based on the personal interest, and has the commitment to have achievement in accordance to the identity (Marcia, 1966).

Erikson explained this developmental stage as the psychosocial stage of identity vs identity confusion (Papalia & Martorell, 2012). Erikson also stated that this stage of development as a crucial stage for a person to obtain identity between the crisis and commitment. Marcia (in Papalia & Martorell, 2012) divided the process into four (4) conditions: the identity achievement, foreclosure, moratorium, and diffusion. According to Marcia (1966) the adolescents who had achieved identity achievement had made personal commitment toward a particular identity after going through the period of crisis and exploration. Whereas they in the moratorium stage were they who had explored but not having commitment. They in the foreclosure stage had not experienced crisis but had determine their identity commitment. The identity diffusion happens when adolescents confuse on their identities and they do not explore to change their identities. Erikson portrayed how the commited identity can grow in the choosen carrier, sex-roles, family roles and in religious, and political perspectives.
Success in forming the self identity will help adolescents to obtain the proper roles in their life (Afrilyanti, Herlina, & Rahmalia, 2015). Development of self identity in the adolescents will influence the directions of their behaviors, their attitudes toward the environment, their personal conducts in their jobs, and reasons of their choices (Martono, 2006). Based on the above considerations, college students are expected to make good decisions. This research is aimed at finding the role of identity statuses of freshmen students on their decisions to choose the direction of their studies.

**Conclusion**

The results indicate that identity status has the role as much as 26.9% on decision making of freshmen, and the other 73.1% are influenced by other factors. This result is parallel with the statement of Moesono (in Sarwono, 2005), that students tend to utilize minimum information to choose their educational program; they are not so critical and they do not use feedback.

This research also obtained that identity achievement has significant role on decision making. This result is similar to Marcia (1966) concept that student who have identity achievement have made personal commitment following the period of crisis and exploration. Thus they have gone through the process of decision making in choosing their educational programs. Students in the foreclosure stage do not experience crisis but they also have determine their identity commitment, similar to the concept or Marcia (1966). They may be conform to others such as based on parental direction or they follow friends. Therefore, they may change their interests in the middle of the program, change their study program or terminate their education for good.

Students in the stage of identity moratorium have been experiencing crisis, thus they have not really determine their choice in attending their program. Most of them make decision based more on trial and error. For example, some students in psychology are not so sure whether they want to have career as psychologists. They are trying to see if the program fits their interests. These students may continue the program if they later on feel the program fits them, they may change or terminate if they consider non fit their interests.

The identity diffusion has no significant role to decision making. They who are in this stage basically do not know exactly the reason for attending the program. They are still confused on their identities as explained by Marcia (1966). They may remain in their program for unclear reason, they may leave the program for various reasons, or they may stay in the program because being instructed by parents. They do not make personal decisions, rather their social environment determines their decision, or they make decision based on their social environment requests. The solution for such problems, specially for students in identity diffusion stage is give them psychoeducation about all kinds of program they can choose, the challenges they have to deal with along the way, and job opportunities they can have with a specific type of degree.
References


Socio-demographics and Political Ideology: A Multinational Analysis

Surat Teerakapibal, Thammasat Business School, Thammasat University, Thailand

Abstract
With an increasingly polarized nature of interparty conflict in politics across the world, researchers in the fields of political science and psychology are eager to determine the antecedents of individuals’ attachment to either liberal or conservative ideologies. While some recent developments illustrate the relationship between political attitudes and biological genes, others associate liberalism and conservatism with personality traits such as adventurousness and conscientiousness. In this paper, I aim to explore the influence of socio-demographic factors on individual’s political attitudes. An ordinal logistic model is estimated using the 2010-2014 World Values Survey data, which was collected from 90,350 individuals in 55 different countries. This data contains information on self-reported political position (on the liberal-conservatism continuum), country of residence, income, gender, age, and education level. Results show that males are more likely to possess a conservative view, while individuals with lower income tend to be liberals. I also find that country of residence plays a vital role in determining one’s political attitude. A positive relationship between liberalism and education level is evident. More importantly, the aging population is associated with conservativeness. As these socio-demographics vary over time, these findings imply that political attitudes are not stable but indeed malleable.

Keywords: Political Ideology, Socio-demographics, Liberalism, Conservatism, Multinational
Introduction

Across the world, citizens are observed with a deep divide in terms of political ideologies. In the United States, for instance, “Republicans and Democrats are more divided along ideological lines – and partisan antipathy is deeper and more extensive – than at any point in the last two decades (Pew Research Center, 2014).” Based on a survey conducted by Pew Research Center (2014), Americans consistently express themselves as either conservative or liberal had increased by twofold over the past two decades. Strikingly, more than 90% of Republicans are to the right of the median Democrat, whereas 94% of Democrats are to the left of the median Republican. With an increasingly polarized nature of interparty conflict in politics across the world, researchers in the fields of political science and psychology are eager to determine the antecedents of individuals’ attachment to either liberal or conservative ideologies (Feldman, 1988; Fiorina, Abrams, & Pope, 2005; Jost, 2006; Jost, Frederico, & Napier, 2009; Layman, 2001; McCarty, Poole, & Rosenthal, 2008).

Amongst numerous potential factors, biological traits are often claimed to be the key determinants of political orientation. In particular, Alford, Funk, & Hibbing (2005) showed that approximately 50% of variation in political attitudes can be explained by heritable traits. Moreover, biological genes can interact with social environment to influence political attitudes (Settle et al, 2010). On the other hand, another stream of researches focuses on psychological factors. These researches argue that variation in motivations across individuals (Jost, 2006; Jost, Glaser, Kruglanski, & Sulloway, 2003; Jost, Nosek, & Gosling, 2008). For instance, conservatives are associated with heightened needs for certainty, openness to experience and conscientiousness (Carney, Jost, Gosling, & Potter, 2008; Gerber, Huber, Doherty, Dowling, & Ha, 2010; McCrae, 1996; Mondak, 2010; Thorisdottir, Jost, Liviatan, & Shrout, 2007).

As extant researches often investigate determinants of political ideologies in a single nation, results may suffer from external validity. Therefore, in this paper, I contribute to literatures by using the 2010-2014 World Values Survey data, which includes 90,350 individuals in 55 different countries across the world. Socio-demographic variables are particularly interesting not only because they have been widely discussed by previous researches, but also because of its time-varying characteristics. In sum, I would like to answer the following research questions:

1. Do socio-demographic variables influence political orientation?
2. Does country of residence have an impact on political attitude?

Data

The data employed by this study is the 2010-2014 World Value Survey conducted by the World Value Survey Association. The data is collected from 90,350 individuals residing in 60 different countries. This data contains information on self-reported political position (on the liberal-conservatism continuum), country of residence, income, gender, age, and education level. Age of respondents ranges from 16 to 99 with the mean of 42.05 years old and the standard deviation of 16.48 years old. Detailed characteristics of respondents are shown in Tables 1 and 2.
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Table 1: Characteristics of Respondents – Income, Education Level and Gender
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Table 2: Characteristics of Respondents – Country of Residence

Model

In order to investigate impacts of socio-demographics on political attitudes, an ordinal logistic model is estimated. More specifically, I let $Y_i$ be the $i^{th}$'s level of conservatism. This implies that an individual with a low value of $Y_i$ is a liberal. Let the probability that an individual $i$ self-indicates that his/her level of conservatism is at the $j^{th}$-level, $Pr(Y_i = j)$, be represented by $\pi_{ij}$. It follows that the cumulative probability can be denoted by $\theta_{ij} = Pr(Y_i \leq j)$:
This is commonly known as the cumulative logit link. Specifically, this methodology contrast the lower level of \( Y \) with the higher levels of \( Y \).

As the dependent variables are interval in nature, the general ordinal logistic regression model is simplified to the proportional odds model. In essence, the two response functions denoted by equations (1)-(9) are assumed to have the same slope parameters. Additionally, this particular simplification constrains the intercepts to gradually increase. Mathematically, equations (1)-(9) become:

\[
\text{logit}(\theta_{1j}) = \alpha_j + X'\beta
\]  

(10)

The most notable advantage of this specification is the ease of interpretation of slope parameters, \( \beta \), which remain constant throughout equations. That is, the incremental impact of an increase in the independent variables on the log odds or logits.

Therefore, based on the proportional odds model, I estimate the following equation:

\[
\text{logit}(\theta_{1j}) = \alpha_j + \mu + \beta \cdot Z_i + \varepsilon_{1j}
\]  

(11)

, where \( \alpha_j \) are intercept terms, \( \mu \) are country-specific constants, \( Z_i \) is a vector of demographic variables: gender indicator, age, income level in deciles, and education level.
Results

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<td>0.1149</td>
<td>106.11</td>
<td>0.0000</td>
</tr>
<tr>
<td>Intercept 7</td>
<td>1.7298</td>
<td>0.1151</td>
<td>226.04</td>
<td>0.0000</td>
</tr>
<tr>
<td>Intercept 8</td>
<td>2.4440</td>
<td>0.1153</td>
<td>449.34</td>
<td>0.0000</td>
</tr>
<tr>
<td>Intercept 9</td>
<td>3.0165</td>
<td>0.1156</td>
<td>680.52</td>
<td>0.0000</td>
</tr>
<tr>
<td>Gender</td>
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<td></td>
<td></td>
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<tr>
<td>Male</td>
<td>0.0364</td>
<td>0.0138</td>
<td>7.00</td>
<td>0.0081</td>
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<tr>
<td>Age</td>
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<td>0.0000</td>
<td>68.77</td>
<td>0.0000</td>
</tr>
<tr>
<td>Education Level</td>
<td>-0.0390</td>
<td>0.0030</td>
<td>134.03</td>
<td>0.0000</td>
</tr>
<tr>
<td>Income</td>
<td>0.0830</td>
<td>0.0040</td>
<td>558.89</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

*Boldface denotes estimates which are statistically significantly different from zero at the significance level of 0.05

Table 3: Estimation Results

The ordinal logistic model described in the previous section is estimated using IBM SPSS Statistics version 21. The -2 Log Likelihood measure is calculated to be 256,714.50, which supports the significance of the model. Parameter estimates are shown in Table 3. As there are over 59 country-specific constants, these estimates are not shown in the table. However, it is important to note that these constants are statistically significant at the significance level of $\alpha = 0.05$. This implies that country of residence remains a potential factor influencing an individual’s political attitude.

Overall, socio-demographic variables are found to be statistically significant at the significance level of $\alpha = 0.05$. In particular, results show that males are more likely to possess a conservative view (0.0364), while individuals with lower income tend to be liberals (0.0830). A positive relationship between liberalism and education level is evident (-0.0390). More importantly, the aging population is associated with conservativeness (0.0040).

Conclusion

In line with extant researches, socio-demographics are key determinants of political ideology. This supports that biological genes as well as the social environment work hand-in-hand to shape individual’s political attitudes. More importantly, as these variables do maleate over time, political parties must be aware that their current supporters may “party switch” in the future. This inevitable implies that the political ideology gap may continue to widen.

More interestingly, country of residence proves to be another determinant of one’s political attitude. Therefore, developments of political polarization will vary depends on the nature of nation’s context.
References


**Contact email:** suratt7@tbs.tu.ac.th
The Identity & Personality of Female Gamblers as Portrayed in Chinese Gambling Movies

Mona Chung, Upper Iowa University, Hong Kong
Chi Chuen Chan, Upper Iowa University, Hong Kong

Abstract
The current study is a qualitative investigation on the identity and the personality of female gamblers portrayed in Chinese gambling movies. Eleven Chinese films produced from 2000 to 2017 were selected for this study. A qualitative content analysis was employed to understand the gambling motivation and the identity development of the characters in the movie. The findings indicate that women gamblers often gamble to escape from personal emotional problems. For a majority of these gamblers, their motivation for gambling is to please their partners and to win back a relationship. Further, on the movies produced prior to 2006, the identities of female gamblers are often depicted with a negative overtone. In many instances, they are described as individuals with little education and career development and having personal emotional problems. However, female characters in movies produced after 2008 demonstrate a more positive portrayal of the identities of women gamblers, in terms of career success and personal development. This shift of identity may be due to the fact that, since early 2000s, more women have become successful in their careers in business and the government services in Hong Kong. In many elite occupations such as medical doctors and lawyers, a lot of women are having the equal professional status as men do. Further, gambling, a traditional Chinese social disgrace, especially for women, is now more acceptable in the Chinese community. The current study highlights the important point that women in the Chinese communities are no longer marginalized, socially and psychologically, as housewives only ----- they can be successful business executives, medical doctors, lawyers, politicians and may be the “Goddess of Gamblers” as well.

Keywords: Women gambling, Chinese gambling movies, the personality of women gamblers, the identity of women gamblers
Introduction

The identity and personality of female gamblers as portrayed in Chinese gambling movies has been a subject of concerns among researchers in popular culture. In psychology, popular culture is the entirety of attitudes, ideas, images, perspectives, and other phenomena that are within the mainstream of a given culture (Storey, 2006). Heavily influenced by mass media, popular culture can be seen as forms of public fantasy, issues of concerns and the collective dream world of a community (Chan & Ohtsuka, 2007). Movies genre, as an important aspect of mass media, reflects the popular culture of a community as people inscribe their histories, beliefs, attitudes, anxieties, hopes, desires and dreams in the images they make (Chan & Ohtsuka, 2008). To date, studies on Chinese gambling movie genres indicate a significant gender difference on the identities and the personality of gamblers. On this issue, Ohtsuka and Chan (2009) writes:

“Thus, recent Hong Kong movies with gambling themes project a prejudicial attitude towards women who participate in gambling. In other words, while the male heroes in gambling movies are striving to be all gods or saints of gamblers, pitching a lonely and desperate fight for moral and social causes; the female counterparts in gambling movies are truly desperate housewives whose daily gambling sessions are an only means of breaking the monotony pervading their otherwise unremarkable existence (p. 237).”

Further, a number of investigations on the psychological analysis of movies with gambling themes have helped us understand the personality development of gamblers (Chan & Ohtsuka, 2011; Ohtsuka & Chan, 2009; Dement, 1999; Turner, Fritz & Zangeneh, 2007). Among these studies, gambling researchers in film studies in Hong Kong have found that:

a. There is a significant gender difference on the motivation among gamblers. Men usually gamble for excitement and monetary rewards while women gamble or emotional escape (Au & Chan, 2015; Chan & Ohtsuka, 2011; Ohtsuka & Chan, 2010).

b. There are three significant pathways among problem gamblers, namely behavioral conditioned gamblers, emotionally vulnerable gamblers and antisocial/impulsive gamblers (Chan, 2014).

On the issue of identity and personality development, Chan and colleagues (Au & Chan, 2015; Chan & Ohtsuka, 2007; Chan & Ohtsuka, 2008; Chan & Ohtsuka, 2011; Ohtsuka & Chan, 2009) have asserted that the characters in Chinese gambling movies demonstrate the following developmental pathways:

a. All characters report an early access and availability of gambling opportunities.

b. Very often, they come from a family environment that encourage them to gamble.

c. They are more likely to report a preference for land-based gambling over online-based gambling, having lower self-control, and adopting a variety of superstitions and cognitive distortions.
And, incorporating the development model of Blaszczynski and Nower (2002) of
gamblers, Chan (2014) has summarized the three distinctive pathways of personality
development of gamblers portrayed in Chinese movies. These are:

(1) Behavioral conditioned gamblers: these gamblers are usually free from
psychological problems before they start gambling. Very often, they learn
gambling from their friends and relatives. Their early gambling experiences
are always positive and reinforcing. But as they continue their gambling,
psychological problems such as depression, anxiety and relationship and work
problems appear. The focus of their problems is their loss of self-control in
gambling;

(2) Emotionally vulnerable gamblers: this group of gamblers, in contrast with
the first group, have significant psychological problems prior to their
development of gambling habits. Thus, they might, rather unconsciously, seek
gambling for emotional escape. Women are over-represented in this group.
For these gamblers, helping them to understand and solve their emotional
problems is the key in the treatment process;

(3) Anti-social/impulsive gamblers: this last group gamblers, prior to their
acquisition of gambling habits, usually have a criminal record and a history of
arrests, and/or substance abuse addictions and dependence. These gamblers
have significant personal/emotional problems. The personality characteristics
of the antisocial gamblers are impulsiveness, the lack of moral reasoning, and
the inability to make rational decision in life in general. These gamblers often
do not seek treatment voluntarily as they seldom have insight to their own
problems.

In the analysis of the identity of gamblers in Chinese gambling movies, Chan and his
colleagues (2014) have analyzed the gambling movies made in Hong Kong in the
period 1970-2006. There have been few, if any, reported study on the identity and the
clinical construction of gamblers from Chinese movies after 2006. The present study
thus intends to fill in this research gap. We would attempt to research on the identity
and the personality of female gamblers in movies with gambling themes produced in
Hong Kong from 2001 to 2016. In the current study, our hypotheses are:

(1) The portrayal of female gamblers has significantly changed from a
negative perspective in the gambling movies made in the 2000s to a more
positive and socially acceptable perspective on movies produced after 2010;
(2) A significant shift in the protagonists’ motivation of gambling and life in
general can be observed in the movies during this period.

Method

Materials:

As shown in Table 1, the authors surveyed all the Chinese movies produced in Hong
from 2000 to 2016 and carefully selected the following eleven movies with gambling
genres.
<table>
<thead>
<tr>
<th>English</th>
<th>Title in Chinese</th>
<th>Release year</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Gambler’s Story</td>
<td>(一個爛賭的傳說)</td>
<td>2001</td>
</tr>
<tr>
<td>Fat Choi Spirit</td>
<td>(嚦咕嚦咕新年財)</td>
<td>2002</td>
</tr>
<tr>
<td>Bet to Basic</td>
<td>(打雀英雄傳)</td>
<td>2006</td>
</tr>
<tr>
<td>House of Mahjong</td>
<td>(嚦咕嚦咕對對碰)</td>
<td>2007</td>
</tr>
<tr>
<td>My Wife Is a Gambling Maestro</td>
<td>(我老婆係賭聖)</td>
<td>2008</td>
</tr>
<tr>
<td>Poker King</td>
<td>(撲克王)</td>
<td>2009</td>
</tr>
<tr>
<td>Mr. and Mrs. Gambler</td>
<td>(爛賭夫鬥爛賭妻)</td>
<td>2012</td>
</tr>
<tr>
<td>From Vegas to Macau I</td>
<td>(賭城風雲)</td>
<td>2014</td>
</tr>
<tr>
<td>From Vegas to Macau II</td>
<td>(賭城風雲 II)</td>
<td>2015</td>
</tr>
<tr>
<td>From Vegas to Macau III</td>
<td>(賭城風雲 III)</td>
<td>2016</td>
</tr>
<tr>
<td>Book of Love</td>
<td>(北京遇上西雅圖之不二情書)</td>
<td>2016</td>
</tr>
</tbody>
</table>

Table 1: Chinese Movies Produced in Hong Kong from 2000-2016

**Procedure**

The current research project employed a qualitative approach. All the movies were examined in details by two raters who are also the authors of this writing. The first author is an aspiring psychologist in Upper Iowa University (Hong Kong center). She has a great interest in psychology and aiming to promote well-being. She is currently the mentee of the second author, who is an experienced psychologist with over 20 years of clinical experiences. To date, the second author has co-authored three books on gambling. His research team has presented over 45 research papers in international conferences in gambling studies. Both raters are ethnic Chinese and can understand all the Chinese dialogues in the movies.

This investigation utilized qualitative content analysis on the genre and characters of 11 gambling movies. Content analysis is a method used to analyse qualitative data (Gondim & Bendassolli, 2014). This approach allows researchers to take qualitative data and to transform it into quantitative data. The technique can be used for data in many different formats, for example interview transcripts, film, and movie analysis (Chan & Ohtsuka, 2011).

In the analysis of the movie characters, the researchers first developed “coding units,” which varied widely depending on the data being measured. For example, when the researchers wanted to assess the motivation of the gamblers in the movie, the coding units were the particular behaviors or words that the characters explained the motives of their gambling. These “coding units” were then gathered under specific headings or “themes.” Further, relevant dialogues that represented the themes were recorded and they formed important pieces of materials for the analysis. In the current study, the gambling behavior of the lead characters in the movies were critically examined. The purpose was to discover the common themes on their motivation, personality development and the gambling behavior in the stories.
Results

a. Demographics:

1) Age: The movies do not give out details of the ages of the women gamblers. All the protagonists are young, usually in their 20s and early 30s.

2) Occupation: The protagonists come from all walks of life. There are a casino dealer, a nightclub manager, an office worker, an office worker, a boss in a criminal gang and a professional gambler. One gambler is unemployed. One interesting common characteristic is that all protagonists are attractive young Chinese women.

b. Games:

1) Most common games in the movies are Taiwanese mah-jong and card games, casino games.

c. Thematic analysis on the identity and the motivation of the female gamblers:

1) The shift in the identities of female gamblers: The movies in 2001-2007 usually portray the female gamblers in a negative light. They are often young attractive women with little career development. The majority of them come from a humble working class background as they fail to achieve a college or professional education. The prototypical character is Ah Gi in “House of Mahjong” (2007). Gigi is an attractive young woman with little career and educational success. Aimless and without purposes in life, she plans on cheating others in mah-jong in order to get rich. The movie portrays a negative image of a manipulative young woman who cheats in gambling for quick money.

A similar theme appears in “Fat Choi Spirit” (2002), where Gigi seeks to improve her mah-jong and interpersonal skills to impress her boyfriend, Andy. In the movie, she is portrayed as an emotional person with significant problems in self-control. And through learning new skills in mahjong, she wins back the approval and the true love. This pattern of gambling of seeking the approval and the love of others also forms the theme of “Bet to Basic (2006).”

As a movie genre, the movies in this period often depicts the female gamblers as attractive women who are deeply in love with their partners and they gamble for maintaining their romantic relationship. In the outcome of the movies, they often find their true love with a happy ending.

In all these movies, some of the defining personality characters of the female gamblers include mood disturbance, negative childhood experiences, and emotional vulnerability which originates from frustrations in love relationships. However, in the movies produced from 2008 to 2016, there is a significant shift in the gambling motivation among the female gamblers. A good example can be seen in “My Wife Is a Gambling Maestro (2008)” which is the first positive portrayal of female gambling. The female lead character, Na-Na, is
presented as an intelligent and attractive young woman. She is an excellent Kung Fu fighter. Further, she has perfect gambling skills. In contrast, her husband is an emotionally fragile and non-assertive figure who seeks protection from the wife. Through her efforts and strong will, she beats the opponents at the ending of the movie. Her story casts a similar vignette of the male gambling hero story in the “God of Gamblers (1990)” starred by Chow Yun Fat.

A similar theme on the positive portrayals of female gamblers is evident in the “Form Vegas to Macau series (2014-2016).” The protagonist (Molly) in the story is a successful career woman, who gambles for career advancement and personal success. She assumes very much a prototype of a successful woman of the 21st century.

Thus, the first hypothesis is supported.

2) The motivation of gambling
In the movies produced prior 2008, the motivation for gambling for the female gambler emphasize on relationship issues. The gamblers either gamble to escape from emotional problems or gamble to please the partner. This depiction is seen in the “A gambler’s Story (2001).” The female protagonist, named Princess in the movie, presents a number of emotional problems. She is depicted as moody, risk taking and has poor coping skills and low self-esteem that might link to childhood experiences of inadequacy, inferiority, and rejection. For her, gambling represents a venue of emotional escape.

On a similar genre, Gigi, the attractive yet emotional vulnerable lady in “Fat Choi Spirit (2002),” gamble to please her boyfriend, Andy. Gigi has bad temper and has significant problems in self-control. On one occasion, she throws all the mah-jong on the floor during a game set. Thus, to help on issues of self-control, her boyfriend, Andy, trains her the skills of mah-jong as he believes that if one’s mah-jong skills are well developed, one’s characters are also good. To Gigi, the motivation for gambling is for the development of positive trait of resiliency and humility.

However, in movies after 2008, there is a significant shift of gambling motivation among female gamblers. Though relationship and romance are still important elements in women’s lives, career success and personal growth are brilliantly highlighted for the female gamblers in recent Chinese movies. In the “Form Vegas to Macau series (2014-2016),” Molly is a tycoon in a major corporation. In the movie, she is portrayed as an independent, assertive and successful businesswoman, a prototype of the successful women in 2010s.

A similar depiction of female gambler is evident in “My Wife Is a Gambling Maestro (2008),” where the female protagonist, Lung Ying Ying once says, “The most important thing in a woman’s life is love. (一個女人最重要係愛情).” In this movie, we discover the reversal of the depiction of the hero figure. In this movie, Na Na is described as a confident, assertive and independent person. In contrast, her husband, Chow Chai Lun, is a social failure with little career development and achievement. The characterization of the hero genre is the
reversal of the usual Kung Fu and Chinese gambling movies such as Chow Yun Fat’s “God of Gamblers series (1989-1991),” where the male hero is usually depicted as intelligent, brave and risk-taking and would save the women around him at all costs.

Thus, the second hypothesis is supported.

Discussion

In our current study, we have examined eleven gambling movies produced in Hong Kong. We discover a significant shift of identity and personality among female gamblers. Movie, as an integral element of popular culture, represents the public concerns, hopes and dreams and problems in a particular community. Hong Kong, a former British Colony and currently a Special Administrative Region under the People’s Republic of China, has long been considered as a melting pot of Chinese and Western cultures. In this predominantly Chinese community in the southern tip of China, Chinese traditions form the basic values and the life styles of the majority of people. Incorporating the findings of gambling researchers in Chinese gambling movies of 1980s through 2000s (Chan & Ohtsuka, 2007, 2008; Chan & Ohtsuka, 2011; Ohtsuka & Chan, 2009), we find three types of female identities representing three distinct generations of Chinese women in this community:

A. Desperate housewives (1980s to 1990s)
Movies produced in the 1980s and 1990s often carry a negative portrayal of female gamblers. In these movies, they are often depicted as women with little education and career prospects. Their games of choice are often mah-jong and Mark Six lottery (the major public lottery game in Hong Kong). Usually, they play mah-jong in the afternoons. The games last only a few hours as they have to prepare dinner for the husband and the children at night. They do not gamble a large amount of money. None of these characters ever play in the casinos. In these movies, most of the gamblers do not win big in the games. Some even loses money in the process. Deep down, these gambling movies convey a moral message to the viewers: A good woman should focus on family issues and children and should not gamble. A game of mah-jong, where the risk is relatively small, is acceptable provided that the players have to fulfil the fundamental household duties (caring of children and cooking at night) after the mah-jong game in the afternoons.

B. Ally McBeals or moody singles (2000s)
Female protagonists in Chinese gambling movies in 2000s often demonstrates signs and symptoms of emotional disturbances. Their gambling often represents an attempt of emotional escape. A dialogue of the protagonist, Princess, in “A Gambler’s Story (2001)” can well illustrate this. Talking to her boyfriend, who is a problem gambler, she says, “I have not been happy for a long time until I met you. Now I know what happiness is (我已經好耐好耐唔記得咩叫開心, 直到我認識咗你, 原來開心係咁樣).” The emotionally vulnerable gambler prototype might represent many women gamblers at that era. Many of these gamblers are not married. And they do not need to rush home to prepare dinners desperately after the game. Instead, they might gamble in the casinos and they might wager a larger amount of money as the movies demonstrate.
C. The successful businesswomen
Movies produced in 2010s portray female gamblers as successful persons. Molly in “From Vegas to Macau II (2014)” is the cultural prototype of this era. She is the boss of a major crime organization – She represents a career-oriented, attractive, independent, brave and daring, and resilient over failures and frustrations in life. She is a role model for the contemporary Chinese career woman. Molly represents the success and struggles of the new generation of the Hong Kong successful women. Deep down, she has significant relationship problems. And gambling is a part of her life. Her story speaks for career-minded professional women who seek for personal success and advancement.

As we strive to be objective in our analysis of Chinese gambling movies and the identities of contemporary women gamblers, our efforts are often baffled and, may be somewhat compromised, by the limited amount of Chinese gambling movies produced in the last 15 years. Added to our difficulties is the fact that all of the movies are made by commercial film companies. To attract a wide audiences, many of the scenes and actions in gambling are exaggerated in the movies. Nonetheless, we trust our endeavors would help us understand the female gamblers in the movies. For the Chinese female gamblers in the 2010s, our conclusion does not concur with the argument of Ohtsuka and Chan (2009), who formulated their theories from movies of an earlier decade. We trust that the majority of contemporay female gamblers are no longer “desperate housewives whose daily gambling sessions are an only means of breaking the monotony pervading their otherwise unremarkable existence (Ohtsuka & Chan, p. 237).” Many of the gamblers are intelligent business women and members of elite professionals. Some of them gamble for emotional escape; others gamble with partners to make them happy and some play the games for personal success and career advancement. These diverse motivations and pathways development are evident in the identity and personality of female gamblers as portrayed in Chinese gambling movies.
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Millennialism Scale: A Measurement of Thoughts and Feelings on the Millennium

Maxwell Markson Brieden, Brigham Young University Hawaii, United States
Alyxandra Stuehler, Brigham Young University Hawaii, United States
Kuan Chung Su, Brigham Young University Hawaii, United States
Ronald Mellado Miller, Brigham Young University Hawaii, United States
Boyd Hunter Timothy, Brigham Young University Hawaii, United States
Chad Ford, Brigham Young University Hawaii, United States
David Duane Whippy, Brigham Young University Hawaii, United States

Abstract
Amongst many Christian denominations is the belief in a millennium, which is a period of 1,000 years either directly preceding or following the second coming of Jesus Christ. There are two differing perspectives based upon the millennium, separated by those who are pre-millennialists and post-millennialists (Mason, 2004). Pre-millennialists believe that people do not have the responsibility of creating peaceful conditions for the second coming of Christ because he will fix the earth. Post-millennialist believe that building a peaceful environment is a responsibility and a commandment that must occur in order for Christ to return again (Mason, 2004). These views have been found to influence how millenialists act in their marriages, attitudes towards climate change and the environment, and a number of other aspects of life and society (Curry, 2008; Wilcox, Linzey, & Jelen, 1991). Basing our questions on a model we created in 2014, this project has updated the previous survey and statistically improved the model. After running exploratory and confirmatory factor analyses, we created an 8-question model measuring an individual’s pre-millennialist and post-millennialist score, CFI = 0.919, TLI = 0.880, AIC = 5806, BIC = 5864, RMSEA = 0.115, SRMR = 0.066. Data was collected from a diverse sample of 223 multicultural participants in the United States. We propose that this survey is a valid measure of pre-millennialist and post-millennialist mindsets, and be used to measure such things whenever needed in order to further the data collection on this subject in a statistically validated and standardized way.

Keywords: survey, peace, pre-millennialist, post-millennialist, millennium

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Millennialism Scale: A measurement of thoughts and feelings on the millennium

Creating peace around the world has been a major goal for people throughout history, however it has proved difficult to find a way to realistically create a more peaceful world (Global Peace Index, 2016). As the world continues to foster more and more turmoil and grievance, there is a greater call for peace. Peacebuilding, as described by the UN and private organizations, is an attempt to tackle the sources of hostility and build conflict resolution in local capacity after peace has been imposed or negotiated (Doyle & Sambanis, 2001). Peacebuilding is put into place to prevent further destruction or hostility between groups (Zartman & Touval, 1985). Many strategies and methods have been formulated from case studies throughout history (Doyle & Sambanis, 2001). Mason (2004) observed two groups of people, those who actively went out to make a difference and those who let the world go in hopes that time would solve the problem (Cassanova, 2001).

The millennium is defined by Mason (2004) as a period of 1,000 years either directly preceding or following the second coming of Jesus Christ. The millennialism scale measures two different types of people: Pre-millennialists and Post-millennialists. Mason defines pre-millennialists as people who believe it is a commandment to build a peaceful environment in order for Christ to return; whereas post-millennialists believe that they do not have to create the conditions for Christ to return because he will come and fix everything when he comes back. Pre-millennialists believe Christ will return when the world decays into conflict while post-milleniaslists believe they will work to bring about the millennium and then Christ will return. These two mindsets differentiate those who are seeking the Second Coming of Jesus Christ by actively going out to create peaceful conditions and those who think by letting there be a lack of peace.

One study found those that act or have gone to war for peace believe more in being able to change the world while those who have never acted for peace don’t believe their actions will change anything (Sarrica & Contarello, 2004). This demonstrates pre-millennialist mindsets and post-millennialist mindsets which involve people's attitudes and how that influences their behavior. Those that do not believe they are supposed to change the world (pre-millennialists) because Christ will fix everything don’t go out trying to create peace, whereas post-millennialists are activists who try to change the world for the better and create peace to resolve conflict because they believe it is their duty.

Within a peacebuilding program offered at a university in the northwestern United States, it was observed that students tended to change their attitudes in many areas of peace and social justice which can be described as involving equity in resources, rights, and treatment of individuals or groups who do not share equal power due to racial, ethnic, age, socio-economic status, religion, physical ability or sexual orientation (Constantine, Hage, Kindaichi, & Bryant, 2007). To measure this change, a millennialist scale was designed to measure thoughts and feelings on the millennium. Curry (2008) found post-millennialists believe they need to create social change in order to prevent global warming and think the world is worth saving.
Wilcox, Linzey, and Jelen (1991) suggests pre-millennialist and post-millennialists mindsets are political consequences. They found that there is a difference in political power ideology between the two mindsets.

Ajzen (1991) suggested that by discovering how people perceive the future, you can identify their behaviors and attitudes. Ajzen described perceived behavioral control as “one’s ability to perform an act.” He believes behavioral control would influence an individual’s intention to act and the action itself. In a social justice context, this would involve people with the belief that they could ‘make a difference’ in the world. Ajzen also believed you could predict social justice actions with subjective norms which was defined as support or the lack of support in an environment to perform a behavior. Torres-Harding, Siers, and Olson (2012) describe behavioral intentions as someone’s engagement in social action or social justice-related activities. Christian denominations differ in their behavior and attitudes of what to do during this time of depravity (Bainton, 2008; Cassanova, 2001). We believe the millennialism scale can be used to measure thoughts on this time before the second coming. This scale should provide the ability to measure differences between those with differing beliefs about the Second Coming. It also can be used to investigate what drives human behavior based on religious ideology. In addition, it provides an opportunity to analyze differences in Christian denominations and their behavior based upon their beliefs of the Second Coming. We believe that there needs to be a consistent and valid measure of pre-millennialist and post-millennialist mindsets for further research. This has led us to the development of the Millennialist Scale: a measurement of thoughts and feelings on the millennium.

Method

Participants

Survey responses were collected from 224 multicultural students from an undergraduate university in the United States. The sample consisted of 65 males and 159 females with an average age of 22.1 years and standard deviation of 3.95 years. The diverse sample had 126 Caucasians, 42 Asians, 8 Hispanic, 42 Polynesians, and 6 unidentified.

Materials

14 Question Millennialist Scale (MS). This scale seeks to identify differences in belief toward the Second Coming of Jesus Christ. Items were generated through interviewing students at an undergraduate university and analysis.

26 Item Intrapersonal Dimension Scale (IDS). Measures how much the individual agrees to intrapersonal statements based on experience in the past week (Lee, 2002). An example question states on a scale from 1 to 7, how strongly they agree with, “I am clear about my thoughts under stress.”
**Pro-social Personality Battery (PPB).** 30 item survey covering topics in social responsibility, empathy, moral reasoning, and self-reported altruism (Penner, Fritzsche, Craiger, & Freifeld, 1995).

**Social Justice Scale (SJS).** A 24 item questionnaire developed to measure attitudes toward social justice related to self-efficacy, efforts, social norms, and intentions related to activities and behaviors of social justice (Torres-Harding, Siers, & Olson, 2012). Subscales include attitudes toward social justice, perceived behavioral control, subjective norms, and behavioral intentions.

**RStudio.** R version 3.3.2 of RStudio was used to run the statistical analysis of the data (RStudio Team, 2016).

**Psych.** The Psych package version 1.5.8 was used to run the factorial analysis in R (Revelle, 2015).

**GPArotation.** The package GPArotation version 2014.11-1 was used to find the Cronbach alpha value for exploratory analysis (Bernaards & Jennrich, 2005).

**Lavaan.** The Lavaan package version 0.5-20 was used in the confirmatory analysis (Rosseel, 2012).

**Semplot.** The Semplot package version 1.0.1 was used in the confirmatory analysis (Epskamp, 2014).

**Procedure**

A diverse group of undergraduates were given a combined survey consisting of the MS, IDS, PPB, and SJS. The survey was administered electronically using Qualtrics (Qualtrics, Provo, UT). After agreeing to informed consent, the survey took the students about 30 minutes to complete.

**Results**

**Exploratory**

Millenial Scale questions were created through professional experts in the field of Peacebuilding. Question structure also received feedback from experts in the area including Patrick Mason and David Pulcifer who are both published authors in peace studies as well as Zach Tilton who is an alumnus of the peacebuilding program and works in the peace corps. Interviews were conducted from people with different cultural, ethnic, and language backgrounds such as Pacific Islanders, Asians, and Hispanics from over 70 different countries. Interview questions pertained to whether the question made sense, if it was worded correctly, and if it could be interpreted incorrectly. It was found that in the initial screening of questions, the words “Kingdom of God” worked better than “Zion.” An exploratory Factor analysis was run on the initial 44 questions developed by experts. After checking for validity,
questions with a Cronbach’s alpha above 0.6 were kept. The survey was then distributed again for further analysis. After exploratory factor analysis, a 14 question model of the millennialist survey was validated. Another round of data collection resulted in better fitted model by removing 6 questions to increase factor loadings for each question. An 8 question model was identified with questions 2, 5, 6, and 8 loading under premillennialism and questions 1, 3, 4, and 7 loading under postmillennialism: Q1 loading = 0.78, Q2 = 0.75, Q3 = 0.87, Q4 = 0.75, Q5 = 0.63, Q6 = 0.69, Q7 = 0.83, and Q8 = 0.80 (table 1). Modification indices were reviewed to confirm items loaded properly into their appropriate factors. Cronbach Alpha of 0.82 was calculated. These results suggest the model is plausible (Schermelleh-Engel, Moosbrugger, & Muller, 2003).

Confirmatory

Confirmatory factor analysis validated the 8 question model CFI = 0.919, TLI = 0.880, AIC = 5806, BIC = 5864, RMSEA = 0.115, SRMR = 0.066. According to Hu & Bentler (1999), a Standardized Root Mean Square Residual Index (SRMR) with a value less than 0.08 is considered good fit. The SRMR finds the average standardized residuals between observed and hypothesized covariance (Chen, 2007). The root mean square error of approximation (RMSEA) measures the difference between observed and hypothesized covariance per degree of freedom and is an acceptable measure when between 0.08 and 0.10 (Cangur & Ercan, 2015). The Tucker Lewis Index (TLI) measures the independence of the model compared to the target model and is said to be acceptable above 0.95. Cangur and Ercan explain the Comparative Fit Index (CFI) as a measure of independence of the model compared to the target model in relation to the chi-square test statistics and is acceptable when larger than 0.95. Anderson, Burnham, and Thompson (2000) explain Akaike Information Criterion (AIC) and Bayesian Information Criterion (BIC) as the best predictive fit estimations and said to be best when found lower than other models. The AIC and BIC can be compared to the old 14 question model which had the corresponding scores AIC = 7110 and BIC = 7188. These results confirm the strength and validity of the 8 question model over the 14 question model.

Regressions

A linear regression analysis was used to validate the effectiveness of the 8 question Millennialist Scale. Premillennialism was used to predict factors from the IDS, PPB, and SJS. We were able to predict attitude toward social justice from premillennialism score F(1, 172) = 30.76, p-value < 0.001, with an adjusted R-squared = 0.1468 (figure 1). Premillennialism predicted behavioral control F(1,172) = 21.71, p-value < 0.001, adjusted R-square = 0.10 (figure 2). Premillennialism predicted behavioral intentions F(1, 172) = 16.8, p-value < 0.001, adjusted R-square = 0.08 (figure 3). Premillennialism predicted subjected norms F(1,172) = 12.04, p-value < 0.001, adjusted R-square = 0.06 (figure 4). Premillennialism predicted intrapersonal score F(1,172) = 6.368, p-value = 0.012, adjusted R-square = 0.03 (figure 5). Premillennialism predicted altruism F(1, 172) = 3.058, one-tailed p-value < 0.05, adjusted R-square = 0.012 (figure 6).
Conclusion

The millennialist survey was validated in measuring an individual’s attitudes toward the second coming of Christ. Through the exploratory analysis, each question was found to fit into either pre-millennialist or post-millennialist mindset factors. The confirmatory analysis showed that the overall fit of the model and questionnaire is reliable and may be used as a whole. The regression analyses found the usefulness of the questionnaire when measuring social justice and other peacebuilding attitudes.

The millennialist survey allows for peacebuilding research and efforts to be further analyzed. The survey equips researchers with the ability to measure peacebuilding behavior and attitudes through the measurement of premillennialism and postmillennialism. Abu-Nimer (2001) sought to identify and measure the attitudes between religious cultures and find a way to have them work together toward peace. In addition to interviews, the millennialist survey can be a tool to measure attitudes quantitatively rather than only qualitatively to better discover ways in which we can help them work together toward creating peace. Religion is said to fuel conflict but also be the way to resolve conflict (Landou, 2003). Understanding someone’s attitude toward the Second Coming may also predict important factors about an individual like their political ideology and public policy (Sriram, 2007).

The millennialist survey has a few more areas to explore in future research. One problem the questionnaire may face is the use toward other religions or people who are not familiar with the Christian faith. It may be proposed that the wording of the questionnaire be altered to fit more faiths of religion such as using attitudes toward the end of the world rather than the Second Coming. It may be advisable to explain the second coming as if it was saying “If the world was going to end tomorrow, what would you do?” Since religion is so integrated into peacebuilding and conflict resolution, we propose that the millennialist survey is a valid measure of people's attitudes toward the Second Coming which can be used to measure peacebuilding attitude and behavior.
References


Pham, P., & Vinck, P. (2007). When the War Ends: A Population-Based Survey on Attitudes about Peace, Justice, and Social Reconstruction in Northern Uganda


**Contact email:** Max.brieden@gmail.com
Apendix A

Millennialism Scale: A measurement of thoughts and feelings on the millennium

Figure 1 Predicting Social Justice from Pre-millennialism
Figure 2 Predicting Behavior Control from Pre-millennialism
Figure 3 Predicting Behavioral Intentions from Pre-millennialism
Figure 4 Predicting Subjective Norms from Pre-millennialism
Figure 5 Predicting Altruism from Pre-millennialism
Table 1 8 Question Millennial Scale

**Millennial Inventory**

*Instructions:* These are questions about your thoughts and feelings concerning the millennium. Please read each question carefully and rate how much you agree with each of the following statements. Please be as honest and accurate as possible in your response.

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Christ will not come until the righteous create the conditions for the second coming.</td>
<td>1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>2. When Christ comes he will make his followers of one heart and one mind.</td>
<td>1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>3. Christ will not come until his followers are of one heart and one mind.</td>
<td>1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>4. We need to create unity for Christ to come.</td>
<td>1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>5. Christ will come when the people of the earth are the least unified.</td>
<td>1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>6. Christ will come at the height of poverty in the world.</td>
<td>1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>7. Christ will not come until his followers care for the poor and needy to the point that they eliminate poverty among themselves.</td>
<td>1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>8. When Christ comes He will create the conditions for God’s Kingdom on earth to be established.</td>
<td>1 2 3 4 5 6</td>
<td></td>
</tr>
</tbody>
</table>
Effect of an Introductory Peacebuilding Class

Maxwell Brieden, Brigham Young University Hawaii, United States
Alyxandra Stuehler, Brigham Young University Hawaii, United States
Miiko Lyné Toussaint, Brigham Young University Hawaii, United States
Ronald Mellado Miller, Brigham Young University Hawaii, United States
Boyd Hunter Timothy, Brigham Young University Hawaii, United States
Chad Ford, Brigham Young University Hawaii, United States
David Duane Whippy, Brigham Young University Hawaii, United States

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Abstract
Social justice advocacy is a term in which individuals are both aware of the “injustices and inequities” of certain populations and are engaged in creating a just and equitable experience for other individuals (Bemak & Chung, 2005). This study aimed to measure the effect of an introductory undergraduate Peacebuilding course on students’ advocacy for social justice. A Social Justice scale designed by Torres-Harding, Siers, and Olson (2011) was utilized to measure social justice scores both before and after completion of the course. A significant increase in social justice scores was found after completion of the class $t(47) = -1.50, p = .07$, one tailed, $d = .21$. Those with more interpersonal empathy were found to favor more government interaction, leading to the identification of changes in attitude amongst political affiliation (Wagaman & Segal, 2014). The class significantly increases Conservative’s belief that it is important to talk to others about societal systems of power, privilege, and oppression $t(24) = -1.44, p = 0.08$, one-tailed, $d = 0.29$. Though only marginally significant, these results are still valid as per to Ward, Greenhill, and Bakke’s suggestion to not utilize the .05 restriction in peace studies but to instead look for good effect sizes. These findings also support Haidt and Graham (2007) who say that conservatives rely upon all five of the foundations of psychological preparedness. These results provide evidence that an introductory peace building class can have a major effect upon different individuals and their social justice attitudes.

Keywords: Peacebuilding, Social Justice, Political Affiliation, Major, Gender
Effect of Peacebuilding Course on Social Justice

Allen (1997) and Duncan-Andrade (2005) both mention that proponents of teacher advocacy can empower students to become peacemakers in the world through making them more aware of challenges and differences in power dynamics. Social justice has been identified as being critically aware of injustice and having dedication to fight for more equality in society (Bemak & Chung, 2005). One such review that calls for greater social justice is by Hatfield and Rapson (2005) who found anger and frustration to be taken out upon minority groups. They suggest more social justice would be a weapon for peace against this problem. Astin and Sax (1998) found that service learning has a significantly positive effect on personal development. Getting students involved in service learning projects increases their understanding of social problems and also gives them a greater acceptance of different cultures and races. This would help establish a greater sense of social justice and further peace building efforts throughout the world. It has been found that those with more interpersonal empathy have a greater positive attitude toward government intervention (Wagaman & Segal, 2014). This would suggest that Liberals would be more likely to be higher in empathy or social justice attitudes, and that changing someone's attitude toward social justice would likely impact their political ideology as well. Because of this, we looked at how people of different political affiliations change their attitudes after taking a peace building class.

To address the demand for a tool that could increase social justice, a peacebuilding course was designed to influence students and their attitudes (Intercultural Peacebuilding). The class involves investigating case studies on effective methods as well as the practice of mediation. A mediator can be defined as an “acceptable, independent and impartial individual or group who assists people in conflict to amicably resolve their differences” (Moore, 2014). This study investigates the influence a Peace Building class has upon Social Justice attitudes.

Ajzen (1998) hypothesized that you could predict someone’s behaviors and attitude based on their perception of the future. He described behavioral control as “one’s ability to perform an act.” Ajzen said that behavioral control influenced an individual’s intention to take action. This could be interpreted as identifying someone’s intentions to create peace in the world. Behavioral intentions is defined by Torres-Harding, Siers, and Olson (2012) as “someone’s engagement in social action or social justice-related activities.” The measurements of these attitudes will be used to better understand the effect an introductory peacebuilding course has on a student.

Method

Participants

48 participants were asked to take a survey consisting of an Intrapersonal Dimension Scale (Lee, 2002), Pro-social Personality Battery (Penner, Fritzschke, Craiger, & Freifeld, 1995), and Social Justice Scale (Torres-Harding, Siers, Olson, 2012). The sample consisted of 36 females and 12 males with an average age of 22.1 years.
Materials

26 Item Intrapersonal Dimension Scale (IDS). Measures how much an individual agrees to intrapersonal statements based on experience in the past week (Lee, 2002). An example question states on a scale from 1 to 7, how strongly they agree with, “I am clear about my thoughts under stress.”

Pro-social Personality Battery (PPB). 30 item survey covering topics in social responsibility, empathy, moral reasoning, and self-reported altruism (Penner, Fritzsche, Craiger, & Freifeld, 1995).

Social Justice Scale (SJS). A 24 item questionnaire developed to measure attitudes toward social justice related to self-efficacy, efforts, social norms, and intentions related to activities and behaviors of social justice (Torres-Harding, Siers, & Olson, 2012). Subscales include attitudes toward social justice (ATSJ), perceived behavioral control (PBC), subjective norms (SN), and behavioral intentions (BI).

RStudio. R version 3.3.2 of RStudio was used to run the statistical analysis of the data (RStudio Team, 2016).

Cohen’s d visualization. An interactive visualization used to measure and interpret the results of Cohen’s d calculation. (Magnusson, 2014).

LSR package. Used to measure Cohen’s d from T tests (Navarro, 2015).

Procedure

A diverse group of 46 undergraduate students completed a survey consisting of the IDS, PPB, and SJS which was administered using Qualtrics, an online survey software (Qualtrics, Provo, UT). The survey took about 30 minutes to complete and the results were analyzed.

Results/Discussion

To test the predictability of Social Justice, multiple t-tests were run on important individual questions from the Millennialist Survey. Genders, ethnicities, and political affiliation were compared before and after taking an introductory Peace Building Class.

Social Justice. Students who took the introductory peace building class significantly increased their Social Justice Score after taking the class \( t(47) = -1.5, \) one-tailed \( p = 0.07, d = 0.21 \) (figure 1). Behavioral intentions increased after taking the class \( t(47) = -1.7, \) one-tailed \( p = 0.05, d = .25 \) (figure 2). Subjective norms increased after the class was taken \( t(47) = -1.5, \) one-tailed \( p = 0.07, d = 0.2 \) (figure 3). Perceived behavioral control increased after the class was taken \( t(47) = -1.5, \) one-tailed \( p = 0.07, d = 0.2 \) (figure 4). Moral responsibility (MR) increased after the class was taken \( t(47) = -1.3, \) one-tailed \( p = 0.09, d = 0.2 \) (figure 5). Empathy increased after the class was taken \( t(47) = -1.9, \) one-
tailed $p = 0.03, d = 0.28$ (figure 6). Intrapersonal score (Intra) increased after the class was taken $t(47) = -2.5, p = 0.018, d = 0.39$ (figure 7).

**Political Affiliation**

**Liberals.** The class significantly decreased Liberals’ view that, “When people are nasty to me, I feel very little responsibility to treat them well:” $t(12) = -1.5, p = 0.078, d = 0.42$ (figure 8). According to R psychologist’s Cohen’s $d$ interactive visualization calculator, with a Cohen’s $d$ of 0.42, 66% of the students after taking the peace building class will be above the mean of the before-class group (Cohen's U3), 83% of the two groups will overlap, and there is a 62% chance that a person picked at random from the after-class group will have a higher score than a person picked at random from the before-class group (probability of superiority). Moreover, in order to have one more favorable outcome in the after-class group compared to the before-class group we need to treat 7.3 people. This means that if 100 people go through the peace building class, 13.7 more people will have a favorable outcome compared to if they had not gone through the introduction peace building class. Favorable outcome can be described as an individual holding a greater positive attitude toward creating social justice or peace.

The class significantly increases the Liberals’ confidence in their ability to work with individuals and groups in ways that are empowering $t(12) = -1.44, p = 0.087, d = 0.40$ (figure 9). With a Cohen's $d$ of 0.4, 66% of the after-class group will be above the mean of the before-class group (Cohen's U3), 84% of the two groups will overlap, and there is a 61% chance that a person picked at random from the after-class group will have a higher score than a person picked at random from the before-class group (probability of superiority). Moreover, in order to have one more favorable outcome in the after-class group compared to the before-class group we need to treat 7.7 people. This means that if 100 people go through the class, 12.9 more people will have a favorable compared to if they had not gone through the class.

**Conservatives.** The class significantly decreases Conservatives’ belief that, “When people are nasty to me, I feel very little responsibility to treat them well:” $t(24) = -1.52, p = 0.07, d = 0.30$ (figure 10). With a Cohen's $d$ of 0.3, 62% of the after-class group will be above the mean of the before-class group (Cohen's U3), 88% of the two groups will overlap, and there is a 58% chance that a person picked at random from the after-class group will have a higher score than a person picked at random from the before-class group (probability of superiority). Moreover, in order to have one more favorable outcome in the after-class group compared to the before-class group we need to treat 10.6 people. This means that if 100 people go through the after-class, 9.4 more people will have a favorable outcome compared to if they had not taken the class.

The class significantly increases Conservatives’ belief that it is important to talk to others about societal systems of power, privilege, and oppression: $t(24) = -1.44, p = 0.08, d = 0.29$ (figure 11). With a Cohen's $d$ of 0.29, 61% of the after-class group will be above the mean of the before-class group (Cohen's U3), 88% of the two groups will overlap, and there is a 58% chance that a person picked at random from the after-class group will have
a higher score than a person picked at random from the before-class group (probability of superiority). Moreover, in order to have one more favorable outcome in the after-class group compared to the before-class group we need to treat 11 people. This means that if 100 people go through the class, 9.1 more people will have a favorable outcome compared to if they had not taken the class.

The class significantly decreases Conservative’s beliefs that when they are right about something, they do not waste much time listening to other people’s arguments: $t(24) = -1.58, p = 0.06, d = 0.32$ (figure 12). With a Cohen's $d$ of 0.32, 63% of the after-class group will be above the mean of the before-class group (Cohen's U3), 87% of the two groups will overlap, and there is a 59% chance that a person picked at random from the after-class group will have a higher score than a person picked at random from the before-class group (probability of superiority). Moreover, in order to have one more favorable outcome in the after-class group compared to the before-class group, we need to treat 9.9 people. This means that if 100 people go through the class, 10.1 more people will have a favorable outcome compared to if they not taken the class.

**Majors**

ICS (Intercultural Studies). The class significantly increases an ICS major’s belief that when they have a job to do, it is impossible to look out for everybody’s best interest: $t(25) = 2.17, p = 0.019, d = 0.43$. With a Cohen's $d$ of 0.43, 67% of the after-class group will be above the mean of the before-class group (Cohen's U3), 83% of the two groups will overlap, and there is a 62% chance that a person picked at random from the after-class group will have a higher score than a person picked at random from the before-class group (probability of superiority). Moreover, in order to have one more favorable outcome in the after-class group compared to the before-class group we need to treat 7.1 people. This means that if 100 people go through the class, 14 more people will have a favorable outcome compared to if they had not taken the class.

The class significantly increases an ICS major’s belief that there are two sides to every question and they try to look at both sides: $t(25) = -2.67, p = 0.0065, d = 0.52$. With a Cohen's $d$ of 0.52, 70% of the after-class group will be above the mean of the before-class group (Cohen's U3), 79% of the two groups will overlap, and there is a 64% chance that a person picked at random from the after-class group will have a higher score than a person picked at random from the before-class group (probability of superiority). Moreover, in order to have one more favorable outcome in the after-class group compared to the before-class group we need to treat 5.8 people. This means that if 100 people go through the class, 17.4 more people will have a favorable outcome compared to if they had not taken the class.

The class significantly increases an ICS major’s belief in the importance of trying to change larger social conditions that cause individual suffering and impede on well-being: $t(25) = -1.57, p = 0.06, d = 0.31$. With a Cohen's $d$ of 0.31, 62% of the after-class group will be above the mean of the before-class group (Cohen's U3), 88% of the two groups will overlap, and there is a 59% chance that a person picked at random from the after-
class group will have a higher score than a person picked at random from the before-class group (probability of superiority). Moreover, in order to have one more favorable outcome in the after-class group compared to the before-class group we need to treat 10.3 people. This means that if 100 people go through the class, 9.7 more people will have a favorable outcome compared to if they had not taken the class.

The class significantly increases an ICS major’s intentions to talk with others about social power inequalities, social injustices, and their impact on social forces on health and well-being: $t(25) = -1.57, p = 0.065, d = 0.30$. With a Cohen's $d$ of 0.3, 62% of the after-class group will be above the mean of the before-class group (Cohen's $U_3$), 88% of the two groups will overlap, and there is a 58% chance that a person picked at random from the after-class group will have a higher score than a person picked at random from the before-class group (probability of superiority). Moreover, in order to have one more favorable outcome in the after-class group compared to the before-class group we need to treat 10.6 people. This means that if 100 people go through the class, 9.4 more people will have a favorable outcome compared to if they had not taken the class.

**Psychology.** The class significantly decreases a Psychology major’s belief that “When people are nasty to me, I feel very little responsibility to treat them well.” $t(6) = -1.55, p = 0.086, d = 0.59$. With a Cohen's $d$ of 0.59, 72% of the after-class group will be above the mean of the before-class group (Cohen's $U_3$), 77% of the two groups will overlap, and there is a 66% chance that a person picked at random from the after-class group will have a higher score than a person picked at random from the before-class group (probability of superiority). Moreover, in order to have one more favorable outcome in the after-class group compared to the before-class group we need to treat 5 people. This means that if 100 people go through the class, 20.1 more people will have a favorable outcome compared to if they had not taken the class.

The class significantly decreases a Psychology major’s belief that “When you have a job to do, it is impossible to look out for everybody’s best interest:” $t(6) = -2.7, p = 0.017, d = 1.03$. With a Cohen's $d$ of 1.03, 85% of the after-class group will be above the mean of the before-class group (Cohen's $U_3$), 61% of the two groups will overlap, and there is a 77% chance that a person picked at random from the after-class group will have a higher score than a person picked at random from the before-class group (probability of superiority). Moreover, in order to have one more favorable outcome in the after-class group compared to the before-class group we need to treat 2.7 people. This means that if 100 people go through the class, 37.5 more people will have a favorable outcome compared to if they had not taken the class.

The class significantly decreases a Psychology major’s belief that when they know they are right about something, they don’t waste much time listening to other people’s arguments: $t(6) = -2.27, p = 0.03, d = 0.86$. With a Cohen's $d$ of 0.86, 81% of the after-class group will be above the mean of the before-class group (Cohen's $U_3$), 67% of the two groups will overlap, and there is a 73% chance that a person picked at random from the after-class group will have a higher score than a person picked at random from the before-class group (probability of superiority). Moreover, in order to have one more
favorable outcome in the after-class group compared to the before-class group we need to treat 3.3 people. This means that if 100 people go through the class, 30.7 more people will have a favorable outcome compared to if they had not taken the class.

The class significantly increases a Psychology major’s belief that it is important to talk to others about societal systems of power, privilege, and oppression: $t(6) = -1.54, p = 0.086, d = 0.59$. With a Cohen's $d$ of 0.59, 72% of the after-class group will be above the mean of the before-class group (Cohen's $U_3$), 77% of the two groups will overlap, and there is a 66% chance that a person picked at random from the after-class group will have a higher score than a person picked at random from the before-class group (probability of superiority). Moreover, in order to have one more favorable outcome in the after-class group compared to the before-class group we need to treat 5 people. This means that if 100 people go through the class, 20.1 more people will have a favorable outcome compared to if they had not taken the class.

**Males.** The class significantly increased males’ intentions to talk with others about social power inequalities, social injustices, and the impact of social forces on health and well-being: $t(11) = -2.6, p = 0.01, d = 0.75$. With a Cohen's $d$ of 0.75, 77% of the treatment group will be above the mean of the control group (Cohen's $U_3$), 71% of the two groups will overlap, and there is a 70% chance that a person picked at random from the treatment group will have a higher score than a person picked at random from the control group (probability of superiority). Moreover, in order to have one more favorable outcome in the treatment group compared to the control group we need to treat 3.8 people. This means that if 100 people go through the treatment, 26.3 more people will have a favorable outcome compared to if they had received the control treatment.

The class significantly increased males’ belief that they possess an ability to work with individuals and groups in ways that are empowering: $t(11) = -2.1, p = 0.027, d = 0.62$. With a Cohen's $d$ of 0.62, 73% of the treatment group will be above the mean of the control group (Cohen's $U_3$), 76% of the two groups will overlap, and there is a 67% chance that a person picked at random from the treatment group will have a higher score than a person picked at random from the control group (probability of superiority). Moreover, in order to have one more favorable outcome in the treatment group compared to the control group we need to treat 4.7 people. This means that if 100 people go through the treatment, 21.2 more people will have a favorable outcome compared to if they had received the control treatment.

The class significantly increased males’ belief that they are capable of influencing others to promote fairness and equality: $t(11) = -1.48, p = 0.08, d = 0.43$. With a Cohen's $d$ of 0.43, 67% of the treatment group will be above the mean of the control group (Cohen's $U_3$), 83% of the two groups will overlap, and there is a 62% chance that a person picked at random from the treatment group will have a higher score than a person picked at random from the control group (probability of superiority). Moreover, in order to have one more favorable outcome in the treatment group compared to the control group we need to treat 7.1 people. This means that if 100 people go through the treatment, 14 more
people will have a favorable outcome compared to if they had received the control treatment.

The class significantly increased males’ confidence in their ability to talk with others about social injustices and the impact of social conditions on health and well-being: $t(11) = -1.39, p = 0.09, d = 0.40$. With a Cohen's $d$ of 0.4, 66% of the treatment group will be above the mean of the control group (Cohen's $U_3$), 84% of the two groups will overlap, and there is a 61% chance that a person picked at random from the treatment group will have a higher score than a person picked at random from the control group (probability of superiority). Moreover, in order to have one more favorable outcome in the treatment group compared to the control group we need to treat 7.7 people. This means that if 100 people go through the treatment, 12.9 more people will have a favorable outcome compared to if they had received the control treatment.

The class significantly increased males’ belief that there are two sides to every question and try to look at both of them: $t(11) = -1.8, p = 0.048, d = 0.53$. With a Cohen's $d$ of 0.53, 70% of the treatment group will be above the mean of the control group (Cohen's $U_3$), 79% of the two groups will overlap, and there is a 65% chance that a person picked at random from the treatment group will have a higher score than a person picked at random from the control group (probability of superiority). Moreover, in order to have one more favorable outcome in the treatment group compared to the control group we need to treat 5.6 people. This means that if 100 people go through the treatment, 17.8 more people will have a favorable outcome compared to if they had received the control treatment.

The class significantly decreased males’ belief that when they have a job to do, it is impossible to look out for everybody’s best interest: $t(11) = 1.9, p = 0.038, d = 0.57$. With a Cohen's $d$ of 0.57, 72% of the treatment group will be above the mean of the control group (Cohen's $U_3$), 78% of the two groups will overlap, and there is a 66% chance that a person picked at random from the treatment group will have a higher score than a person picked at random from the control group (probability of superiority). Moreover, in order to have one more favorable outcome in the treatment group compared to the control group we need to treat 5.2 people. This means that if 100 people go through the treatment, 19.3 more people will have a favorable outcome compared to if they had received the control treatment.

**Females.** The class significantly decreased females’ belief that when people are nasty to them, they feel little responsibility to treat them well: $t(35) = -1.74, p = 0.04, d = 0.29$. With a Cohen's $d$ of 0.29, 61% of the treatment group will be above the mean of the control group (Cohen's $U_3$), 88% of the two groups will overlap, and there is a 58% chance that a person picked at random from the treatment group will have a higher score than a person picked at random from the control group (probability of superiority). Moreover, in order to have one more favorable outcome in the treatment group compared to the control group we need to treat 11 people. This means that if 100 people go through the treatment, 9.1 more people will have a favorable outcome compared to if they had received the control treatment.
The class significantly increased females’ belief that regardless of what a person has done to us, there is no excuse for taking advantage of them: $t(35) = -2.33$, $p = 0.01$, $d = 0.39$. With a Cohen's $d$ of 0.39, 65% of the treatment group will be above the mean of the control group (Cohen's $U_3$), 85% of the two groups will overlap, and there is a 61% chance that a person picked at random from the treatment group will have a higher score than a person picked at random from the control group (probability of superiority). Moreover, in order to have one more favorable outcome in the treatment group compared to the control group we need to treat 8 people. This means that if 100 people go through the treatment, 12.6 more people will have a favorable outcome compared to if they had received the control treatment.

The class significantly increased females’ belief that it is important to try to change larger social conditions that cause individual suffering and impede well-being: $t(35) = -1.5$, $p = 0.067$, $d = 0.26$. With a Cohen's $d$ of 0.26, 60% of the treatment group will be above the mean of the control group (Cohen's $U_3$), 90% of the two groups will overlap, and there is a 57% chance that a person picked at random from the treatment group will have a higher score than a person picked at random from the control group (probability of superiority). Moreover, in order to have one more favorable outcome in the treatment group compared to the control group we need to treat 12.4 people. This means that if 100 people go through the treatment, 8 more people will have a favorable outcome compared to if they had received the control treatment.

**Discussion**

The results of the introductory peacebuilding course show a significant impact on student’s attitudes toward social justice. We see the class having a large effect on the students. Males tend to change more than females and we can also see different changes in attitudes between political affiliations and college major. We believe this study sets the framework into investigating which skills are taught within the introductory peacebuilding course that are having such an effect on these students. It is important to highlight the low sample size for some of the demographics; however, finding significance with low sample size is promising as it shows we may find greater significance through the gathering of more participants.

Future studies should control for how long students have attended the university, change in geographic location, influence from other classes, as well as exposure to other cultures and traditions. Many of the students come from diverse backgrounds which may play an impact on student’s acceptance of outside viewpoints. A greater sample size would also help us identify more accurate results. In future research, we hope to control for more factors and investigate deeper into what is influencing these changes in attitudes and peacebuilding intentions.

The increase of intrapersonal score shows that people feel more confident in themselves. This helps them to have confidence that they are making a difference in the world. Behavioral intentions and control were shown to increase which shows that people feel like they have the control to act on their beliefs in creating a more peaceful world. This
attitude may be useful for helping individuals take control and follow through with behaviors that they believe in. Self reported altruism was found to not significantly change. This could show that people are not willing to sacrifice for others if it means giving they might lose something themselves. This could be a large factor in encouraging others to follow through with social justice behaviors. When people protest for civil rights, it is easier for someone to protest alongside a large group of individuals. This is because if laws are broken, the blame is dispersed among the group and not on an individual. You find altruism in those that stand out on their own, making a difference while taking a full responsibility for one’s actions. Since altruism does not increase among students who take an introductory peacebuilding course, it may explain that students are more motivated to make a group action toward peace rather then trying to fight for change on their own.

According to the results of Torres-Harding, Siers, and Olson (2012), the increase of the subscales social justice, perceived behavioral control, subjective norms, and behavioral intentions would be negatively correlated with racism, neosexism, and global belief-in-a-just-world. This can be interpreted as those that score higher in these subscales are less likely to deny minorities fair treatment. Taking this introductory peacebuilding class shows an impact on giving individuals an understanding that the world is unfair and unjust due to the conditions of systematic oppression in society. The introductory peacebuilding class broadens an individual’s awareness of problems in society while increasing their desire to make a difference in their society.

Future research could investigate if taking an introductory peacebuilding class decreases racist and sexist attitudes. Although this study involved a diverse sample, participants came from a highly LDS population. More research could focus on whether these conditions apply to other sects of Christianity and religions. This study furthers our understanding of what motivates individuals to partake in peacebuilding behaviors. We encourage the implementation and future research of peacebuilding courses which are taught in university programs.
References


**Contact email:** Max.brieden@gmail.com
Appendix A

Figure 1 Attitudes Toward Social Justice Before (ATSJ Score1) and After (ATSJ Score2)
Introduction Peacebuilding Course
Figure 2 Behavioral Intentions Before (BI Score1) and After (BI Score2) Introduction to the Peacebuilding Course
Figure 3 Subjective Norms Before (SN Score1) and After (SN Score2) Introduction Peacebuilding Course
Figure 4 Perceived Behavioral Control Before (PBC Score1) and After (PBC Score2)

Introduction Peacebuilding Course
Figure 5 Moral Responsibility Before (MR Score1) and After (MR Score2) Introduction Peacebuilding Course
Figure 6 Empathy, Before (Empathy 1) and After (Empathy 2) Introduction Peacebuilding Course
Figure 7 Intrapersonal Score, Before (Intra Score 1) and After (Intra Score 2)
Introduction Peacebuilding Course
Figure 8 Decrease Liberals view that "When people are nasty to me, I feel very little responsibility to treat them well" (Reverse Scored) Question = V65, Time taken survey = V136
Figure 9 Increase liberals confidence in ability to work with individuals and groups in ways that are empowering.
Figure 10 Decrease in Conservatives belief that "When people are nasty to me, I feel very little responsibility to treat them well." (Reverse Scored)
Figure 11 Increase in Conservatives belief that it is important to talk to others about societal systems of power, privilege, and oppression.
Figure 12 Decreases Conservative belief that when they are right about something, they don't waste much time listening to other people's arguments (Reverse Scored).
Substance Abuse and Religiosity

Leslie I. Silva, Brigham Young University-Hawaii, USA  
Ronald M. Miller, Brigham Young University-Hawaii, USA  
Dean M. Busby, Brigham Young University, USA

Abstract
This study addresses the importance of substance abuse in regards to religiosity. Prior research (Hodge, Cardenas, & Montoya, 2001) indicates that both high spirituality and religious participation are predictors of low substance abuse. Other research in the past has shown that adolescents that scored high on the Alcohol Involvement scale tended to come from families that were not characterized as having a strong orientation to religion (McGue, Sharma, & Benson, 1996). For this study 5097 participants were analyzed utilizing data from the Relate Assessment, which analyzes factors that have impact on substance abuse. The results found that higher spiritual confirmation significantly predicted lower substance abuse while controlling for partner substance abuse, levels of commitment, religious orientation score, and happiness p<0.01, (Adj R2 = .26). To test if there is a difference between religiosity and gender, this study ran a 2 (gender) x 10 (religion) factorial ANOVA. Results indicated a significant difference among those that affiliate themselves with religion, and their gender p<.001. A Tukey HSD found that high frequency of practice and high intensity belief religious groups differed significantly from the others F(1,9) = 4.31, p<.001, pb2=0.01. We conclude that high religiosity can predict low substance abuse, as well as a difference in levels of religiosity among a variety of religious groups.

Keywords: Substance abuse, Religion, Spirituality
Substance Abuse and Religiosity

Past research has shown a relationship between substance abuse and religiosity. The idea behind substance use involves the definitions, and behavioral aspects from these past researchers. Starting with how substance abuse starts, which is the involvement with compulsive use of the drug (Koob & Moal, 1997). Many of the symptoms or criteria, involve individuals experiencing a loss of control over drug intake, as well as a narrowing of the number of different behavioral responses toward drug-seeking (Jaffe & Martin, 1990). Meaning that the more involved a person is with the drugs they consume; their tolerance increases and they continue to see after more drugs.

Research in the past has indicated that there was an impact between religion, and substance abuse. Religiosity being known as a multi-faceted object, incorporating cognitive, emotional, motivational, and behavioral aspects (Hackney & Sanders, 2003). Meaning that religion has a way of being involved in numerous aspects of our lives physically, and mentally. Pargament (2001) defined spirituality as a search for views that are deemed as sacred, these views served as the central function of religion, mostly "a search for significance in ways related to the sacred". With religion, different experiences are giving a new meaning, somehow a sacred meaning, as it is incorporated with feelings of the individual. Religion has shown to have an impact on substance use, and abuse. Particularly with young adults, and teenagers.

Adolescents that scored high on the Alcohol Involvement scale tended to come from families that were not characterized as having a strong orientation to religion (McGue, Sharma, & Benson, 1996). There was an inverse relationship between teens that were actively engaged in religious activities and substance use (Flory et al., 2004). It seems to be that religion provided a haven to those that want to avoid drug use, or are recovering from drug use. Religion is a protective factor against alcohol and other substance use for both white and black adolescents. The impact of religion and abstinence on white youth was on an individual level, whereas for black youth the influence of religion seems greatest at the group level (Wallace, Brown, Bachman, & Laveist, 2003). Religion affects individuals in different ways, but it still provides the same result; teenagers, and young adults that are more religiously involved tend to use less drugs, or completely remain abstinent. Religious service attendance, and frequency of prayer, were all significant predictors of problem drinking for black adolescents. Whereas the level of importance placed on religion, and religious fundamentalism were the significant predictors for white adolescents (Brown, Parks, Zimmerman, & Phillips, 2001).

There needs to be more research to better understand the mechanisms in how religion promotes abstinence of drugs. There has not been a study with a measurement of many different religious denominations in regards to how much each group abuses substances. This research hypothesized that there is a difference in the level of substance use from these 10 denominations for men and women. This is important to study because for example, Miller (1998) has indicated that analyzing this relationship is necessary before any firm conclusions can be made, noting that religion may provide protective mechanisms from of drugs. Would religion increase in promoting
abstinence or moderation? Can it provide time-occupying activities that require no drug use; as well as the values religion promotes in living a drug free life. This research hypothesized that higher scores on Religious Orientation from the RELATE Questionnaire (Busby, Holman, & Taniguchi, 2001) will significantly predicted lower substance abuse while controlling for partner substance abuse, levels of commitment, spiritual confirmation scale, and happiness. Partner attachment is important to consider in this research, since the RELATE Questionnaire (Busby, Holman, & Taniguchi, 2001) handles the potential influences relationships have on substance abuse. This experiment chose to control for partner substance abuse, levels of commitment, and spiritual confirmation because past research has repeatedly been shown that significant factors in the development of deviant behavior and substance use come from peer influences, (Hops, Andrews, Duncan, Duncan, & Tildesley, 2000).

Method

Participants

5097 Americans participated in this study from the Relate Survey data set (Busby, Holman, & Taniguchi, 2001). 3138 were females and 1959 were males. The age range was 18-79 (m= 30, SD= 9.89).

Materials and Procedure

An online survey developed by the RELATE Institute at BYU - Provo. Provides a way to analyze potential strengths, weaknesses, and problem areas in a relationship, making it easier to talk about problems areas and improve ourselves. A data set was analyzed and various hypotheses were tested to come up with the results. The RELATE model was developed by reviewing over 50 years of research that delineated the important premarital predictors of later marital quality and stability (Busby, Holman, & Taniguchi, 2001). The conceptual model for RELATE shows that the individual, familial, cultural, and couple contexts are constantly influencing one another in a reciprocal manner. Whenever two individuals form a relationship, their unique contexts interact with and influence one another. Each relationship is made up of multitudinous differences and similarities between the partners and contexts (Busby, Holman, & Taniguchi, 2001). This experiment used R 3.3.1 for Windows and RStudio Version 0.99.486 – © 2009-2015 a free statistical analysis software to analyze the data (RStudio Team, 2015).

Results

Table 1, and Figure 1 shows the results indicated that higher Religious Orientation significantly predicted lower substance abuse while controlling for partner substance abuse, levels of commitment, spiritual confirmation scale, and happiness F(5,4983)=359, p<0.01, (Adj R2 =.26). For the predictor variables, the variable p-values, and the standardized beta weights are: Partner substance abuse p<.001,
Table 2 shows the results of testing if there is a difference between religiosity and gender, this study ran a 2 (gender) x 10 (religion) factorial ANOVA (Figure 2). Results indicated a significant difference among those that affiliate themselves with religion, and their gender F(9.5011) = 4.3129, p<.001. A Tukey HSD found that high frequency of practice and high intensity belief religious groups differed significantly from the others F(1,9) = 4.31, p<.001, pb2=0.01.

Discussion

Based off the results, both hypotheses were supported. The first hypothesis was focusing on the idea that Religiosity will have an impact on the level of substance abuse for the individuals involved in this study. The second hypothesis focused on whether there were differences in the levels of substance use due to differences in religiosity among 10 different religious groups. Perhaps it is not the religion itself that promotes abstinence from drugs, but the life satisfaction that comes from being religious.

Cigarette smoking, chewing tobacco, marijuana, cocaine, regular alcohol use, binge drinking, injection drug, and steroid use were significantly associated with reduced life satisfaction (Zullig, Valois, Huebner, Oeltmann, & Drane, 2001). There seems to be a relationship between a decrease in life satisfaction, religiosity, and drug use. The less religious often experience a decrease in life satisfaction, and an increase in drug use. The negative consequences that come from past and future drug use, increase the motivation of “wanting a better life”, the common reasons that have been cited by alcohol and other drug users for seeking recovery (Laudet, Savage, & Mahmood, 2002). When there is a reduction in life satisfaction engaging in various risk-taking behaviors related to health (e.g. tobacco, alcohol, and other drug abuse) individuals might respond in such a way as an attempt to improve their life satisfaction (Zullig, Valois, Huebner, Oeltmann, & Drane, 2001). There may be a biological factor attributing to this, as drugs increase chemical components in our brains, such as an increase of dopamine levels. Recent research from (Ferguson et al., 2016) found that from the fMRI images the regions of the brain that showed response to religious experience were part of the reward circuit of the brain, which is also the same region that responds to drugs, junk food, and sex.

With this research measuring 10 different denominations, the hypothesis that was conducted investigated that if there are different levels of substance use, then perhaps that would indicate different levels of religiosity. Perhaps there is an indirect effect on decreasing substance abuse between the variables of the level of religiosity, and life satisfaction. This research used the ranking of the intensity of religious beliefs (Figure 3), and practices from (Pew Research Center, 2009) to demonstrate what denominations are considered high intensity of beliefs, and high frequency of practice. At the individual level, religiosity shows modest positive correlations with life satisfaction (Stavrova et al., 2013). At the individual level, religious adherence is

\[ \beta = 0.201, \text{Levels of commitment } p<0.001, \beta = 0.047, \text{Spiritual confirmation } p<0.01, \beta = -0.048, \text{Religious orientation score } p<0.001, \beta = 0.413, \text{Happiness scale } p<0.01, \beta = 0.037. \]
associated with improved mental and physical health, marital stability, reduced incidences of criminal and delinquent activity, and lower rates of alcohol and drug abuse (Iannacone 1998). Income and religious belief positively predicted life satisfaction at an individual level while controlling for age, gender, and education. Also, the more religious individuals reported higher levels of life satisfaction than less religious individuals (Plouffe, & Tremblay, 2017). Could it be perhaps it is not religiosity that promotes abstinence of substance abuse, but the relationship that religiosity has on the increase of life satisfaction?

**Limitations**

The limitations of this study included not being able to measure Life satisfaction. The Relate Questionnaire does not include data or measurements for this variable.

**Conclusion**

It would be good to look in the future how each of the religious denominations were measured on collectivistic, and individualistic qualities in relation to substance use. To see if the policing of communities, as well as the support system is a factor on an individual’s substance abuse. Future research should also find run a mediation analysis on whether life satisfaction, or level of religiosity is the reason for a decrease in substance abuse. This mediation analysis will be able to calculate the indirect effect on substance abuse.
References


Figure 1. The higher the Religious Orientation score significantly predicted lower substance abuse (higher scores indicate lower use), while controlling for partner substance abuse, levels of commitment, spiritual confirmation scale, and happiness, p<0.01.

Figure 2. The influence of the ten different religious groups on substance use. 1=Protestant (Methodist, Lutheran, Episcopal, Baptist, etc.), 2=Jewish, 3=Islamic, 4=Latter-day Saint (Mormon), 5=Buddhist, 6=Hindu, 7=Sikh, 8=Other, 9=None, 10=Eastern Orthodox Catholic.
Figure 3. This chart demonstrates different religious denominations and where they stand on frequency of practice, and intensity of beliefs (Pew Research Center, 2009).

Points represent average score for each group on 10-point scales measuring intensity of religious beliefs and intensity of religious practices. The belief scale includes measures of belief in God, importance of religion and belief in an afterlife; the practice scale includes measures of frequency of worship attendance, prayer and scripture reading. Both scales range from 1 to 10, with those exhibiting the highest levels of religious commitment scoring 10 and those with the lowest levels scoring 1.
Table 1

Model Summary

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**Post Hoc Tests**

**Post Hoc Comparisons - Religions**

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<td>6.678</td>
</tr>
<tr>
<td>6</td>
<td>2.405</td>
<td>0.495</td>
<td>4.858</td>
</tr>
<tr>
<td>7</td>
<td>1.818</td>
<td>1.384</td>
<td>1.314</td>
</tr>
<tr>
<td>8</td>
<td>2.536</td>
<td>0.122</td>
<td>20.784</td>
</tr>
<tr>
<td>9</td>
<td>3.025</td>
<td>0.083</td>
<td>36.286</td>
</tr>
<tr>
<td>10</td>
<td>2.629</td>
<td>0.090</td>
<td>29.115</td>
</tr>
<tr>
<td>5 6</td>
<td>-0.027</td>
<td>0.606</td>
<td>0.044</td>
</tr>
<tr>
<td>7</td>
<td>0.027</td>
<td>1.427</td>
<td>-0.393</td>
</tr>
<tr>
<td>8</td>
<td>0.158</td>
<td>0.371</td>
<td>0.426</td>
</tr>
<tr>
<td>9</td>
<td>0.646</td>
<td>0.360</td>
<td>1.796</td>
</tr>
<tr>
<td>10</td>
<td>0.251</td>
<td>0.361</td>
<td>0.694</td>
</tr>
<tr>
<td></td>
<td>Mean Difference</td>
<td>SE</td>
<td>t</td>
</tr>
<tr>
<td>---</td>
<td>----------------</td>
<td>-----</td>
<td>-------</td>
</tr>
<tr>
<td>6</td>
<td>-0.587</td>
<td>1.468</td>
<td>-0.400</td>
</tr>
<tr>
<td>8</td>
<td>0.131</td>
<td>0.506</td>
<td>0.259</td>
</tr>
<tr>
<td>9</td>
<td>0.619</td>
<td>0.498</td>
<td>1.244</td>
</tr>
<tr>
<td>10</td>
<td>0.224</td>
<td>0.499</td>
<td>0.449</td>
</tr>
<tr>
<td>7</td>
<td>0.718</td>
<td>1.388</td>
<td>0.518</td>
</tr>
<tr>
<td>8</td>
<td>1.207</td>
<td>1.385</td>
<td>0.871</td>
</tr>
<tr>
<td>9</td>
<td>0.811</td>
<td>1.385</td>
<td>0.586</td>
</tr>
<tr>
<td>10</td>
<td>0.093</td>
<td>0.136</td>
<td>0.683</td>
</tr>
<tr>
<td>8</td>
<td>0.488</td>
<td>0.132</td>
<td>3.706</td>
</tr>
<tr>
<td>9</td>
<td>0.093</td>
<td>0.136</td>
<td>0.683</td>
</tr>
<tr>
<td>10</td>
<td>-0.395</td>
<td>0.103</td>
<td>-3.833</td>
</tr>
</tbody>
</table>

1=Protestant (Methodist, Lutheran, Episcopalian, Baptist, etc.), 2=Jewish, 3=Islamic, 4=Latter-day Saint (Mormon), 5=Buddhist, 6=Hindu, 7=Sikh, 8=Other, 9=None, 10=Eastern Orthodox Catholic.
Anxiety and Return to Work in Breast Cancer Patients Receiving Outpatient Chemotherapy

Tamura Saori, Doshisha Women's College of Liberal Arts, Japan
Sachiko Mitsuki, Doshisha Women's College of Liberal Arts, Japan
Koichi Sakaguchi, University Hospital,
Kyoto Prefectural University of Medicine, Japan
Ryuya Yamanaka, Kyoto Prefectural University of Medicine, Japan

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Official Conference Proceedings

Abstract
This study aimed to clarify the differences of anxiety among breast cancer patients receiving outpatients chemotherapy according to their employment status. Twenty-eight breast cancer patients being treated by outpatients chemotherapy were recruited. A questionnaire was used to survey the attributes, employment status, and level of anxiety in these patients based on the Cancer-chemotherapy Concerns Rating Scale (CCRS). Data from three groups (an employed group, an intermittent employed group, and a not employed group) were analyzed by multiple comparisons tests. Patients’ mean age was 55.1 ± 9.9 years. According to the CCRS findings, these following three parameters were different among three groups: “I always think my disease” (p<.007: employed vs not employed, p=.005) and “I can't work (housework/schoolwork)” (p<.049: employed vs intermittent, p=.045), sub-item of “own existence” (p<.024: employed vs not employed, p=.024).

This study revealed the characteristic of anxiety in patients with breast cancer according to their employment status. Being able to continue work is considered to enhance the social health of these patients. Predicting anxiety that was strongly experienced by employed patients and collecting information will help acquiring perspective in early nursing intervention.

Keywords: breast cancer, outpatient chemotherapy, anxiety, return to work
Introduction

In the past three decades, significant advances in the management of cancer have reduced cancer-related mortality rates and thereby increased the number of cancer survivors (Hewitt et al., 2003; Lakdawalla et al., 2010). The development of outpatient chemotherapy has increased the working population of patients with cancer who are undergoing cancer therapy. However, a significant number of cancer survivors experience physical, psychological, and social problems. There is a decrease in income due to job change and work time reduction which is not desired by treatment. The issue of working is an economic problem and is directly connected to quality of life (QOL) in a working population. Physical suffering and psychological distress increase due to side effects of chemotherapy. This study aimed to clarify the differences of anxiety among breast cancer patients receiving outpatients chemotherapy according to their employment status.

Conclusion

Twenty-eight breast cancer patients being treated by outpatients chemotherapy were recruited. A questionnaire was used to survey the attributes, employment status, and level of anxiety in these patients based on the Cancer-chemotherapy Concerns Rating Scale (CCRS) (Kwon et al., 2016). Data from three groups (an employed group, an intermittently employed group, and a not employed group) were analyzed by multiple comparisons tests. Statistical comparison of each CCRS subscale was performed using the Kruskal-Wallis test to analyze differences in scores for each employment status.

Patients’ mean age was 55.1±9.9 years. According to the CCRS findings, these following three parameters were different between three groups: “I always think my disease” (p<.007: employed vs not employed, p=.005) and “I can't work (housework/schoolwork) work” (p<.049: employed vs intermittently employed, p=.045), sub-item of “self existence” (p<.024: employed vs not employed, p=.024).

This study revealed the characteristic of anxiety in patients with breast cancer according to their employment status. Being able to continue work is considered to enhance the social health of these patients. Predicting anxiety that was strongly experienced by employed patients and collecting information will help acquiring perspective in early nursing intervention.
Cancer-chemotherapy Concerns Rating Scale (CCRS) according to employment status.  

<table>
<thead>
<tr>
<th>Sub-item</th>
<th>employed (n=14)</th>
<th>intermittently employed (n=5)</th>
<th>unemployed (n=9)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Disease progress</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I always think about my disease</td>
<td>4.0 3.0 - 4.0</td>
<td>3.0 2.0 - 4.0</td>
<td>3.0 2.0 - 4.0</td>
<td>0.007*</td>
</tr>
<tr>
<td>I have anxiety about recurrence and metastasis</td>
<td>3.5 3.0 - 4.0</td>
<td>3.0 3.0 - 4.0</td>
<td>3.0 3.0 - 4.0</td>
<td>0.595</td>
</tr>
<tr>
<td>My will-power and physical strength are decreased</td>
<td>3.0 2.0 - 4.0</td>
<td>3.0 2.0 - 4.0</td>
<td>3.0 1.0 - 4.0</td>
<td>0.242</td>
</tr>
<tr>
<td><strong>Reorganization of daily life</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am not able to take care of myself</td>
<td>1.0 1.0 - 3.0</td>
<td>1.0 1.0 - 1.0</td>
<td>1.0 1.0 - 3.0</td>
<td>0.364</td>
</tr>
<tr>
<td>I cannot maintain the rhythm of my daily life</td>
<td>2.0 1.0 - 3.0</td>
<td>1.0 1.0 - 1.0</td>
<td>1.0 1.0 - 2.0</td>
<td>0.478</td>
</tr>
<tr>
<td>I cannot work (housework/schoolwork)</td>
<td>3.0 1.0 - 4.0</td>
<td>1.0 1.0 - 2.0</td>
<td>2.0 1.0 - 3.0</td>
<td>0.049*</td>
</tr>
<tr>
<td><strong>Self-existence</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I restrict my life</td>
<td>2.5 1.0 - 4.0</td>
<td>1.0 1.0 - 3.0</td>
<td>3.0 1.0 - 3.0</td>
<td>0.250</td>
</tr>
<tr>
<td>I am restricted by my family’s worry</td>
<td>1.5 1.0 - 4.0</td>
<td>1.0 1.0 - 4.0</td>
<td>2.0 1.0 - 3.0</td>
<td>0.958</td>
</tr>
<tr>
<td>I feel alienated from society</td>
<td>1.0 1.0 - 4.0</td>
<td>1.0 1.0 - 2.0</td>
<td>1.0 1.0 - 3.0</td>
<td>0.560</td>
</tr>
<tr>
<td>I do not feel like myself</td>
<td>1.5 1.0 - 4.0</td>
<td>1.0 1.0 - 2.0</td>
<td>2.0 1.0 - 3.0</td>
<td>0.274</td>
</tr>
<tr>
<td>I want to rely on someone or something</td>
<td>2.0 1.0 - 3.0</td>
<td>1.0 1.0 - 3.0</td>
<td>2.0 1.0 - 3.0</td>
<td>0.110</td>
</tr>
<tr>
<td>I lost a human relationship</td>
<td>1.0 1.0 - 4.0</td>
<td>1.0 1.0 - 1.0</td>
<td>1.0 1.0 - 2.0</td>
<td>0.413</td>
</tr>
<tr>
<td><strong>Social and economy concerns</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I worry about my family's future</td>
<td>2.0 1.0 - 4.0</td>
<td>2.0 1.0 - 3.0</td>
<td>3.0 1.0 - 4.0</td>
<td>0.565</td>
</tr>
<tr>
<td>I worry about not being able to fulfill my duties</td>
<td>2.5 1.0 - 4.0</td>
<td>1.0 1.0 - 3.0</td>
<td>3.0 1.0 - 4.0</td>
<td>0.206</td>
</tr>
<tr>
<td>I worry about my financial future</td>
<td>3.0 1.0 - 4.0</td>
<td>3.0 1.0 - 3.0</td>
<td>2.0 1.0 - 4.0</td>
<td>0.991</td>
</tr>
</tbody>
</table>

* p<0.05

The 15 items of the Cancer-chemotherapy Concerns Rating Scale are divided into four subscales. The total score for each item was calculated. 

The Asian Conference on Psychology & the Behavioral Sciences 2017
References


Contact email: stamura@dwc.doshisha.ac.jp
**Mediating Role of Ethnic Identity on the Relationship between Ethnicity and Life Satisfaction among Indonesians Adolescents**

Unita Werdi Rahajeng, Universitas Brawijaya, Indonesia

**Abstract**

Indonesia is known as a multi-ethnic and multi-culture country then Javanese is the largest ethnic group among the population. Ethnicity and culture is an aspect which determine a person's identity. As another domain of identity, ethnic identity is a predictor of psychological well-being, including life satisfaction. Adolescent’s life satisfaction is a subjective evaluation to specific domain including family, peer, school, environment and self. This study explored the mediating role of ethnic identity on the relationship between ethnicity and life satisfaction. Participants-844 adolescents (mean age = 14.76 years old; 58.8% females)-classified into three groups based on their ethnicity: Javanese adolescent, mixed-Javanese adolescent and non-Javanese adolescent. Indonesian version of Multigroup Ethnic Identity Measure-Revised (MEIM-R) was used to identify adolescent’s ethnic identity whereas Indonesian version of Multidimensional Students' Life Satisfaction Scale (MSLSS) was used to identify adolescent life satisfaction in specific domains. The results showed that ethnicity predicted ethnic identity ($p = 0.028$) and were able to serve as a mediator of relationship between ethnicity and some specific domains of adolescent life satisfaction which were school context Discussion and limitations of the study will be reviewed further in the article.

Keywords: adolescent, ethnic identity, life satisfaction, psychological well-being
Introduction

Membership in an ethnic group is sometime become part of people’s personal identity. People is considered have characteristics that often become stereotypes of their ethnic groups. Mostly be a part of a particular ethnic group is given, because it deals with the birth and phenotype. However each person develop a distinct identity linked to their ethnic background.

People awareness of membership in a particular ethnic group is often associated with ethnic identity. Ethnic identity as a part of social identity inseparable from Tajfel’s perspective (1981) which proposed that social identity is part of the self-concept that is rooted in his knowledge of his membership in some group and value or emotional aspects associated with his membership. From life span development perspective, self-identity is constructed from early life and continues throughout life, yet become a prominent concern in adolescence and young adulthood (Erikson, 1968). Similarly, ethnic identity, which has greater meaning for adolescents compared to previous periods.

Ethnic identity is constructed by two dimension, commitment and exploration (Phinney & Ong, 2007). Commitment refers to the sense of belonging to their ethnic group, which is considered the most important component of ethnic identity. Adolescents who have a strong commitment to their ethnic group, have strong attachment with their ethnic group as well as easy to imitate the values that exist within ethnic groups. Although it is assumed that ethnic identity is a picture of how strong the commitment, but in order to achieve a strong and secure ethnic identity, it should be accompanied by a strong exploration well (Phinney & Ong, 2007). Whereas exploration refers to efforts to seek information and experiences related to their ethnic group that became one of the important things in the process of formation of social identity. Adolescents explore their identity by doing some activities, such as studying the customs of ethnic groups, attending cultural events, or reading literature related to their ethnic group.

Adolescents from ethnic majority group lead some advantage in forming strong and secure ethnic identity, that are easiness to get a behavior reference in an attempt to explore and support their commitment. On the other hand, adolescents from ethnic minority groups, tend to have fewer behavioral reference related to their ethnic groups compared with adolescents from ethnic majority group. Nevertheless, ethnic minority adolescents usually have strong support from their family circle to strengthen ethnic identity (Umana-Taylor & Fine, 2004) so that their ethnic identity is often as strong as the ethnic majority (French & Seidman, 2006) or even stronger than the ethnic majority group (Phinney & Alipuria, 1990). In particular, strong ethnic identity of minority ethnic groups have great benefits for adolescents which is prone to be prejudiced and has a weak position in inter-ethnic conflicts.

Between majority and minority ethnic groups there is a group called bi-ethnic. Bi-ethnic adolescent have a diverse ethnic groups background, usually both parents are from different ethnic group. Adolescents from this group more prone to have a weak ethnic identity or experience ethnic identity confusion. This is caused by susceptible to a conflict of values, frames of reference, or the guidance of a different behavior from both parents who have different ethnic group (Navarrete & Jenkins, 2011).
Ethnic identity becomes relevant study on the plural and heterogeneous groups, where there is majority and minority in it (Rosenthal, 1987) as well as in Desai (2013) and Umana-Taylor & Fine (2004). I think it would be very interesting for conducting research related to ethnic identity in Indonesia which is often talked as the most diverse country, mainly refer to its diverse ethnic group. In Indonesia, at least, there are over 300 ethnic groups, mostly native ancestry, like Javanese, Madurese, Sundanese, or Batak and another in small amount foreign origin, like Chinese, Arab, Indian. Javanese is a largest ethnic group (42% of the population) and most of them live in Java Island, the most populous island in Indonesia. Javanese dominate many aspects in Indonesia, including the social and political.

In this study, Javanese adolescents were identified as part of the majority ethnic group while adolescents from other ethnic groups were identified as minority ethnic group, for example Madurese, Batak, Tionghoa, or Arab. Furthermore, adolescents whose parent were from different ethnic group, one were Javanese whereas his/her spouse were from minority ethnic group, were identified as a bi-ethnic adolescents.

Ethnic identity has been identified as factor affecting adolescent self-adjustment. It has a positive correlation with minority adolescent’s self-esteem (Phinney, 1991, Martinez & Dukes, 1997). From another study conducted by Roberts, et.al (1999) claimed that ethnic identity is positively correlated with coping skills and optimism. Adolescents with strong ethnic identity exhibit higher levels of quality of life, where quality of life is a common indicator of well-being (Utsey, Chae, Brown, & Kelly, 2002). In adolescence, ethnic identity has a more significant contribution in establishing wellbeing, than ethnic identity in adulthood or elderly (Smith & Silva, 2011).

Previously, study about quality of life and subjective well-being focused in adult and elderly population only. Nowadays many experts show an interest to study quality of life in children and adolescents as well (see Wallander & Koot, 2016, Gilligan & Huebner, 2002). Generally, quality of life is predicted by existence of positive affect, absence of negative affect, and sense of life satisfaction. In this study, I focused on the adolescent’s life satisfaction as a one of the important indicator in subjective well-being.

Life satisfaction is defined as a cognitive evaluation of one’s life as a whole and/or specific life domains (Huebner, 1994). Adolescent life satisfaction in a specific domain provides a more detailed picture because often each domains have a different characteristics. The specific life domain proposed by Huebner (1994) consists of family, peer, school, environment, and self. I assumed that ethnicity and ethnic identity will not have a significant contribution in predicting life satisfaction of family and self. However ethnicity and ethnic identity have a role in shaping adolescent life satisfaction in broader social contexts, such as peer, school, and living environment.

Method

Participant in this study were student in several junior and senior middle school in Malang, Indonesia. Total participant were 844 (mean age = 14,76 years old; 58,8% female) classified into three groups based on their ethnicity: Javanese adolescent (N=587), mixed-Javanese adolescent (N=170), and non-Javanese adolescent (N=87).
Participant were asked to give response to set of questionnaire which consist of demographic information, Indonesian version of Multi-group Ethnic Identity Measure-Revised (MEIM-R), and Indonesian version of Multidimensional Students' Life Satisfaction Scale (MSLSS).

The ethnicity classification derived from demographic information. Participant classified into three groups based on their parent ethnicity. They were identified as Javanese adolescent if both parent were Javanese, represented as majority ethnic group. The mixed-Javanese adolescent were identified if one of parent were Javanese, represented as bi-ethnic group and non-Javanese if none of parent were Javanese, represented as minority ethnic group.

Indonesian version of Multi-group Ethnic Identity Measure-Revised (MEIM-R) were adapted from measurement proposed by Phinney & Ong (2007). There were 12 items consist of 5 items identify exploration and 7 items identify commitment toward ethnis group. The items were scored on a 4-point Likert scale with end points of 1 (strongly disagree) and 4 (strongly agree). The mean of total items were coded so that higher mean indicated higher ethnic identity. Reliability coefficient in proposed study (Phinney & Ong, 2007) were 0.83 (exploration), 0.89 (commitment) whereas in current study were 0.864.

The last measurement, Indonesian version of Multidimensional Students' Life Satisfaction Scale (MSLSS) were adapted from previous measurement proposed by Huebner (1994). The measurement were scored on a 4-point Likert scale with end points of 1 (strongly disagree) and 4 (strongly agree). There were 5 specific domains: family (7 items), friend (7 items), school (8 items), living environment (7 items), and self (7 items). Internal consistency coefficients from previous study was acceptable range from 0.70 to 0.90 (Huebner, 1994; Huebner, Laughlin, Ash, & Gilman, 1997) whereas in current study were 0.817 (family), 0.776 (friend), 0.798 (school), 0.781 (living environment), and 0.686 (self).

**Result**

Table 1. Mean and SD of ethnic identity and specific domain of life satisfaction in each ethnic group

<table>
<thead>
<tr>
<th>Variable</th>
<th>Javanese</th>
<th>Mixed-Javanese</th>
<th>Non Javanese</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td>Ethnic Identity*</td>
<td>3.011</td>
<td>0.387</td>
<td>2.921</td>
</tr>
<tr>
<td>Family LS</td>
<td>3.324</td>
<td>0.470</td>
<td>3.270</td>
</tr>
<tr>
<td>Friend LS*</td>
<td>3.373</td>
<td>0.395</td>
<td>3.312</td>
</tr>
<tr>
<td>School LS**</td>
<td>3.101</td>
<td>0.456</td>
<td>3.041</td>
</tr>
<tr>
<td>Living Environment LS</td>
<td>3.134</td>
<td>0.527</td>
<td>3.024</td>
</tr>
<tr>
<td>Self LS</td>
<td>3.162</td>
<td>0.369</td>
<td>3.153</td>
</tr>
</tbody>
</table>

Note. Anova analysis result for each ethnic group: **p<.01, *p<.05

Data presented in table 1 indicated that there were significant effect from ethnicity to ethnic identity ($F=3.588, p=0.028$). From post-hoc analysis it was found that ethnic identity from Javanese adolescent differ with bi-ethnic adolescent ($p = 0.028$) but not differ with mixed-Javanese adolescent ($p=0.469$). No significant difference found in
ethnic identity between mixed-Javanese and non-Javanese adolescent (p=0.777). It also was found that there were significant differences between ethnicity in certain domain of life satisfaction, i.e friend (F=3.971, p=0.019) and school (F=6.934, p=0.001), but no difference in life satisfaction in another domains, i.e. family (F=1.197, p=0.303), living environment (F=3.014, p=0.050), and self (F=0.600, p=0.549). Table 2 was presented that ethnic identity was a significant predictor for all domains in life satisfaction and all domains in life satisfaction relate with one another.

<table>
<thead>
<tr>
<th>Variable</th>
<th>α</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ethnic Identity</td>
<td>0.864</td>
<td>2.987</td>
<td>0.402</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Family LS</td>
<td>0.817</td>
<td>3.315</td>
<td>0.471</td>
<td>0.308**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Friend LS</td>
<td>0.776</td>
<td>3.349</td>
<td>0.399</td>
<td>0.315**</td>
<td>0.285**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. School LS</td>
<td>0.798</td>
<td>3.075</td>
<td>0.464</td>
<td>0.320**</td>
<td>0.343**</td>
<td>0.361**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Living LS</td>
<td>0.781</td>
<td>3.105</td>
<td>0.531</td>
<td>0.336**</td>
<td>0.526**</td>
<td>0.282**</td>
<td>0.408**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>6. Self LS</td>
<td>0.686</td>
<td>3.155</td>
<td>0.363</td>
<td>0.453**</td>
<td>0.330**</td>
<td>0.464**</td>
<td>0.354**</td>
<td>0.266**</td>
<td>1</td>
</tr>
</tbody>
</table>

**p<.01, *p<.05, ns not significance

Because I was interested to know whether there was mediator role of ethnic identity in the relationship between ethnicity and life satisfaction in each domain, then I conducted mediation analysis using Hayes’ Process Tool. The focus of the analysis was on what life satisfaction domain, ethnic identity able to be a mediator.

1. Mediation analysis in family life satisfaction

There was no significant indirect effect of ethnicity on family life satisfaction through ethnic identity, $b = -0.004$, BCa CI [-0.033 0.001]. In this case ethnic identity unable to be a mediator in the relationship between ethnicity with life satisfaction in family domain.

![Mediation Model between Ethnicity, Ethnic Identity, and Family Life Satisfaction](image)

$\text{Ethnic Identity}$

Fig 1. Mediation Model between Ethnicity, Ethnic Identity, and Family Life Satisfaction

2. Mediation analysis in friend life satisfaction

There was no significant indirect effect of ethnicity on friend life satisfaction through ethnic identity, $b = -0.013$, BCa CI [-0.030, 0.000]. In this case ethnic identity unable serve as a mediator in the relationship between ethnicity with life satisfaction in friend domain.
3. Mediation analysis in school life satisfaction

There was significant indirect effect of ethnicity on school life satisfaction through ethnic identity, $b = -0.016$, BCa CI [-0.034, 0.001]. In this case ethnic identity serves as a mediator in the relationship between ethnicity with life satisfaction in school domain.

4. Mediation analysis in living environment life satisfaction

There was no significant indirect effect of ethnicity on living environment life-satisfaction through ethnic identity, $b = -0.019$, BCa CI [-0.039, 0.001]. So ethnic identity unable to serve as a mediator in the relationship between ethnicity and life satisfaction in living environment domain.
5. Mediation analysis in self life satisfaction

There was significant indirect effect of ethnicity on self life satisfaction through ethnic identity, $b = -0.019$, BCa CI [-0.039, 0.001]. So ethnic identity become a mediator in the relationship between ethnicity and life satisfaction on self domain.

![Mediation Model between Ethnicity, Ethnic Identity, and School Life Satisfaction](image)

Indirect effect, $b = -0.018$, 95% CI [-0.040, -0.002]

Fig 5. Mediation Model between Ethnicity, Ethnic Identity, and School Life Satisfaction

Ethnic identity only mediates ethnicity and life satisfaction in 2 domains, i.e. school and self. Since significant relationships are found between ethnicity and school life satisfaction, but not between ethnicity and self life satisfaction, so the mediational model of relation between ethnicity and self life satisfaction was not meet some condition of mediational model, which were variations in levels of the predictor (ethnicity) did not significantly account for variations in outcome i.e. self life satisfaction (see Baron and Kenny, 1986). Thus further discussion focus on the mediating role of ethnic identity in the relationship between ethnicity and life satisfaction in school domain.

Conclusion

In this study, it was found that ethnic identity in Javanese adolescent was higher compared with another group. This is quite natural, as the adolescents from majority ethnic group have a wider opportunity to explore and form a strong commitment to their ethnic group. While bi-ethnic adolescents are the ones with the weakest ethnic identity among other. As a mention before, this group has a risk for experiencing ethnic identity confusion, due to multiple ethnic references from parents who have different ethnic backgrounds.

No significant differences were found in the family, living environment, and self domains of life satisfaction, so that adolescent ethnicity does not affect life satisfaction in those domains. In the rest domains of life satisfaction, Javanese adolescent has a higher level than another groups and non-Javanese adolescent is the group that has the lowest level of life satisfaction in friend and school domains. Being an adolescent from minority ethnic group seems to be related to the low life satisfaction-relative compared to the majority ethnic group or whose ethnic group has a linkage with majority group (in this case is bi-ethnic group), in the context of peer group. This result was similar to Huebner's (1994) finding suggesting that children of Black (minority groups in Huebner’s study) had lower life satisfaction in friend domains among another ethnic group.
Ethnic identity have mediating role in only a domain life satisfaction that is in the school domain. Both on ethnic identity and life satisfaction in school, Javanese adolescents, as a majority group, have the highest levels among other. Different case were found in the other two ethnic groups. Compared with the mixed-Javanese adolescent, non-Javanese adolescent had lower ethnic identity but instead, had higher life satisfaction in school. It seemed that although ethnic identity from minority ethnic group are stronger than bi-ethnic group, they are not strong enough to promote a life satisfaction in school equally to other ethnic groups. Hence it seems that ethnic identity becomes suppression that makes the mediation relationship in this research seem confounding.

It is necessary to observe the characteristics of the participant school environment. Participants are students in Malang, one of the small town in Java where majority of those people is Javanese. Generally the atmosphere in school is not far apart from the Javanese culture and tradition, example for daily language using. In school context, students are not only required to be able to build an adequate relationship with peers but also with adults, such as teachers. Whereas in Javanese culture, interaction among adults and young people, is relatively more complex and has strict ethics. Moreover mostly school requires students to take local cultural lesson, including studies on Javanese language and Javanese culture. This condition is certainly become challenge for minority ethnic students. Although they have strong ethnic identity and it has positive correlation with life satisfaction in school context, but value of life satisfaction was not increase equivalent compared with majority or bi-ethnic groups.

In contrast to the bi-ethnic student experience, although they face challenge to form ethnic identity but the comfort of being in an environment which is still have tied with one of their ancestry cultures supports a better life satisfaction in school context.

Some limitations of this study are the researcher did not pay attention to the composition of students in schools where the study was conducted. Some schools have a composition that tends to be heterogeneous while others are homogenous. In a heterogeneous school, mostly comparison of the composition of ethnic groups spread evenly while in homogeneous schools there is one ethnic that becomes dominant. Moreover, the number of compositions among participants of the majority, minority, and bi-ethnic ethnic groups seems to differ greatly. In future studies, these limitations should be concerned.
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The Relationship of Identity Status to Peer Relation during Adolescence

Laila Qodariah, Universitas Padjadjaran, Indonesia
Lucia Voni Pebriani, Universitas Padjadjaran, Indonesia

Abstract

Who am I? These questions reflect the search for an identity. Identity is a self-portrait composed of many pieces, including these: the career; political; religious; relationship; achievement; sexual; ethnic; interests; personality; and physical identity. Adolescents search their culture’s identity files, experimenting with different roles and personalities. For adolescence peer approval becomes increasingly important. Peers play an important role in the development of individuals in all cultures. This study will focus on the relationship between identity status to peer relation in adolescence. The survey was conducted using James Marcia (1999) concept of four statuses of identity: identity diffusion, identity foreclosure, identity moratorium, and identity achievement. Sample were 156 participants from Bandung, West Java, Indonesia. Using correlational study, the result show that there is a significant correlation ($r=0.228$, $p>0.01$) between peer relation with relationship identity. Meanwhile, for other identity they are not significantly correlate. Using descriptive analysis, the result show that adolescence who perceive that they have close relationship with their peers, they develop identity achievement in religious (71.14%), relationship (50.33%), sexual (78.52%), ethnic (62.41%), interest (53.69%), and physical (43.62%). One of good peer relation most important functions is to provide a source of information and comparison about the world outside the family. Adolescence receive feedback about their abilities from their peer group. They evaluate what they do in terms of whether it is better than, as good as, or worse than what other adolescence do.

Keywords: Identity Status, Peer Relation, Adolescence
Introduction

When adolescence ask about these questions: Who am I? What am I all about? What am I going to do with my life? What is different about me? How can I make it on my own? These questions reflect the search for an identity. Identity is sense of individual uniqueness as well as an unconscious striving for continuity of experience. Identity refer to a sense of who one is as a person and as a contributor to society. Identity is a self-portrait composed of many pieces, including these: vocational/career identity; political identity; religious identity; relationship identity; achievement, intellectual identity; sexual identity; cultural/ethnic identity; interests; personality; physical identity.

Erikson acknowledged that identity issues could arise throughout the life course, but saw identity formation as the critical "developmental task" of adolescence. During this period, society leaves adolescents relatively free of responsibilities and able to try out different identities. Adolescents in effect experimenting with different roles and personalities. The process of searching and exploring the identity is called crisis. Crisis is defined as a period of identity development during which the individual is exploring alternatives. Commitment is personal investment in identity. These were defined in terms of the presence and absence of crises and commitment related to important life decisions: identity diffusion (no current crisis or commitment); moratorium (current crisis, no commitment); foreclosure (commitment, no apparent former crisis); and identity achievement (commitment, previous crisis resolved).

Youth who successfully cope with these conflicting identities emerge with a new sense of self that is both refreshing and acceptable. Adolescents who do not successfully resolve this identity crisis suffer what Erikson calls identity confusion. The confusion takes one of two courses: individuals withdraw, isolating themselves from peers and family, or they immerse themselves in the world of peers and lose their identity in the crowd.

Identity exploration during adolescence influenced by several factors, such as families, parent, peers, cultural, media, school, and teacher. Peer approval becomes increasingly important during adolescence, but adult as well as peer support continues to be an important influence on self-esteem through adolescence. Good peer relations may be necessary for normal social development. As they interact with peers in these various contexts, children and adolescents likely encounter different messages and different opportunities to engage in adaptive and maladaptive behavior that can influence their development.

The impact of peers on adolescents cannot be underestimated. The right people crossing their path at critical times can reinforce positive values and enhance the entire process of growing up. The wrong individuals can escort them into extremely negative detours or suck the life out of them. Peers play an extremely important role in the psychological development of adolescence. Peer provide the sort of models and feedback that adolescence cannot get from adult. Spending time with peers also is vital for the development and expressions of autonomy. Experiencing the peer group also can be an important influence on adolescence’s self-image. Peers are an important
Influence on adolescence achievement. Adolescence consider the time they spend with their peers to be among the most enjoyable parts of the day. They usually having a good time and share their interest together. Seeing the importance of relationships with peers on adolescents’ exploration identity development, thus the researchers focused this study to see the role of peer relationships to identity status during adolescence.

Conclusion

Participant in this research were 156 adolescence aged 10 to 21 from Bandung, West Java, Indonesia, as you can see on the Figure 1 below, 19% were early adolescence, 47% were middle adolescence and 34% were late adolescence. Their average age was 15.6 years. Survey were conducted using Self-Questionnaire of Identity Status from Marcia (1993) consisted 10 dimension of identity status (Career, Political, Religious, Relationship, Intellectual, Sexual, Cultural, Interest, Personality, Physical). Participants were asked to choose their identity status positions in each dimension, whether included in status: diffusion (1), foreclosure (2), moratorium (3), and achievement (4). For variable peer relations, researchers used a single indicator, how adolescence perceived their relationship with their peer, whether they perceived have close and positive peer relationship (2) or apart and negative (1).

The result show that most of the participant (96%) perceived that they have close and positive peer relationship. Good peer relations important for adolescence social development. Support from peers is related to a positive sense of identity, and that peer acceptance and academic performance are related to self-concept in early adolescence (Harter, Whitesell, & Kowalski, 1992; Brown 2009). The results of this study indicate that the identity status during adolescence varied accomplishments in every dimension. On the dimension of religious, sexual, cultural, and relationship mostly teenagers, included early adolescence, middle adolescence, late adolescence and identity indicate the status of achievement in these four dimensions, as can be seen in Figure 2 below.
There is no significant correlation between peer relationship with identity status of religious, gender, and cultural as can be seen on Table 1 below. For Adolescence in Indonesia, these three domains were more influenced by role of parent and family. Adolescence in East Asian countries have grown up influenced by a collectivist emphasis on fitting with the group and connecting with others. Identity achievement for adolescence in East Asian develop through identification and imitation of others in cultural group such as family and social role since they are young (Santrock, 2014). Including in Indonesia with collectivist cultures, ethnic identity have been achieved since a young age. The role of the gender was achieved through the identification and imitation against persons significant since a young age. Selection of religion for young people in Indonesia achieved since childhood. Based on qualitative research conducted by Bani Sunuhadi (2013), it is known that the achievement of religious identity in adolescence in Jakarta, Indonesia is dominated by the role of parents since childhood through imitation, encourage children to kept up to follow the activities of worship since childhood, and enter the child attended religious schools from childhood for achieved religious values.

Identity status of relationship have significant correlation with peer relationship ($r=0.228$, $p > 0.01$). Peers are children who share the same age or maturity level. Adolescence spend less time with their parents, but spend increasing amounts of time with their peers. Peers are neither an entirely supportive and healthy set of associates for adolescents, nor a social force driving them fervently toward maladaptive outcomes.
### Table 1: Correlation Matrix for Peer Relation to Identity Status of Religious, Gender, Cultural, and Relationship

<table>
<thead>
<tr>
<th>Correlation Coefficient</th>
<th>Religious</th>
<th>Gender</th>
<th>Cultural</th>
<th>Relationship</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peer Relation</td>
<td>0.031</td>
<td>-0.022</td>
<td>0.058</td>
<td>0.228**</td>
</tr>
<tr>
<td>Career</td>
<td>0.170*</td>
<td>0.056</td>
<td>0.056</td>
<td>0.160*</td>
</tr>
<tr>
<td>Political</td>
<td>0.166*</td>
<td>0.198*</td>
<td>0.114</td>
<td>0.148</td>
</tr>
<tr>
<td>Religious</td>
<td>1.000</td>
<td>0.413**</td>
<td>0.320**</td>
<td>0.288**</td>
</tr>
<tr>
<td>Relationship</td>
<td>0.288**</td>
<td>0.217**</td>
<td>0.106</td>
<td>1.000</td>
</tr>
<tr>
<td>Intimate</td>
<td>0.027</td>
<td>-0.053</td>
<td>0.053</td>
<td>-0.113</td>
</tr>
<tr>
<td>Intellectual</td>
<td>0.298**</td>
<td>0.092</td>
<td>0.105</td>
<td>0.185*</td>
</tr>
<tr>
<td>Gender</td>
<td>0.413**</td>
<td>1.000</td>
<td>0.323**</td>
<td>0.217**</td>
</tr>
<tr>
<td>Cultural</td>
<td>0.320**</td>
<td>0.323**</td>
<td>1.000</td>
<td>0.106</td>
</tr>
<tr>
<td>Interest</td>
<td>0.153</td>
<td>0.176</td>
<td>0.216**</td>
<td>0.163*</td>
</tr>
<tr>
<td>Personality</td>
<td>0.197*</td>
<td>0.226**</td>
<td>0.329**</td>
<td>0.243**</td>
</tr>
<tr>
<td>Physical</td>
<td>0.275**</td>
<td>0.312**</td>
<td>0.274**</td>
<td>0.130</td>
</tr>
</tbody>
</table>

Note: **. Correlation is significant at the 0.01 level (2-tailed)
*. Correlation is significant at the 0.05 level (2-tailed)

Using descriptive analysis, the result shows that adolescence who perceive that they have close relationship with their peers (positive relation), they develop identity achievement in religious (71.14%), relationship (50.33%), sexual (78.52%), ethnic (62.41%), interest (53.69%), and physical (43.62%) as can be seen on Table 2 below.

Steinberg and Silverberg (1986) suggested that the transition from childhood to adolescence is marked more by a trade of dependency on parents for dependency on peers rather than a straightforward growth in autonomy. Peer have important function for adolescence to deal with the transition into adulthood. Peers provide information and comparison to evaluate about their abilities. Peers provide role models, feedback, and social comparison that will affected their self-esteem and happiness (Santrock, 2014; Patrick, Neighbors & Knee, 2004; Garofalo, 2008; Brown, 2004)

<table>
<thead>
<tr>
<th>Identity Status (Achievement)</th>
<th>Peer Relationship</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Positive</td>
</tr>
<tr>
<td>Career</td>
<td>16.0%</td>
</tr>
<tr>
<td>Political</td>
<td>5.1%</td>
</tr>
<tr>
<td>Religious</td>
<td>71.0%</td>
</tr>
<tr>
<td>Relationship</td>
<td>50.0%</td>
</tr>
<tr>
<td>Intimate</td>
<td>10.9%</td>
</tr>
<tr>
<td>Intellectual</td>
<td>32.0%</td>
</tr>
<tr>
<td>Sex/Gender</td>
<td>78.0%</td>
</tr>
<tr>
<td>Cultural</td>
<td>62.0%</td>
</tr>
<tr>
<td>Interest</td>
<td>53.0%</td>
</tr>
<tr>
<td>Personality</td>
<td>35.0%</td>
</tr>
<tr>
<td>Physical</td>
<td>43.0%</td>
</tr>
</tbody>
</table>

Table 2: Correlation Matrix for Peer Relation to Identity Status of Career, Political, and Intimate
The identity status of interest, personality, physical, and intellectual, were dominated with identity achievement and identity moratorium status as can be seen in Figure 3 below. On the fourth of these domains, teens still tend to be explore and not yet fully determined committed, especially in early adolescence.

![Figure 3: Identity Status of Interest, Personality, Physical, and Intellectual During Adolescence](image)

Identity moratorium is often considered a more functionally status than either diffusion or foreclosure, because the individual is taking proactive steps in autonomously considering identity alternatives and it is implied by maturity. In addition, few preadolescents were reported to be in the identity achievement status, but the proportion of the individuals in this group was higher among older adolescents (Waterman, 1999; Santrock, 2014). The percentage of adolescents in moratorium status seems to peak at the age of 17 to 19, after which it decreases. Streitmatter (1993) found that foreclosure and diffusion scores decreased across a 2-year period of high school, whereas moratorium scores increased.

In this study, peer relationship has no significant correlation with the identity status of interest, personality, physical, and intellectual as can be seen on Table 3 below. However, parents, families, peers, teacher and others can help youth reflect on their identity and achieve a strong and healthy sense of self by facilitating both individuation and connectedness. Adolescents may select peer groups having members who share similar characteristics and interests with those they have themselves, or they may leave groups that do not fit with their characteristics or motivation (Cohen, 1977; Nurmi 2004). Spending time with peers also is vital for the development and expressions of autonomy. Peer group provide a context for adolescence to test out decision making skill.
<table>
<thead>
<tr>
<th>Correlation Coefficient</th>
<th>Interest</th>
<th>Personality</th>
<th>Physical</th>
<th>Intellectual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peer Relation</td>
<td>-0.034</td>
<td>-0.001</td>
<td>0.062</td>
<td>-0.023</td>
</tr>
<tr>
<td>Career</td>
<td>0.207**</td>
<td>0.152</td>
<td>0.054</td>
<td>0.273**</td>
</tr>
<tr>
<td>Political</td>
<td>0.102</td>
<td>0.199*</td>
<td>0.115</td>
<td>0.119</td>
</tr>
<tr>
<td>Religious</td>
<td>0.153</td>
<td>0.197*</td>
<td>0.275**</td>
<td>0.298**</td>
</tr>
<tr>
<td>Relationship</td>
<td>0.163*</td>
<td>0.243**</td>
<td>0.130</td>
<td>0.185*</td>
</tr>
<tr>
<td>Intimate</td>
<td>0.067</td>
<td>0.030</td>
<td>0.304**</td>
<td>1.000</td>
</tr>
<tr>
<td>Intellectual</td>
<td>0.234**</td>
<td>0.355**</td>
<td>0.213**</td>
<td>0.194*</td>
</tr>
<tr>
<td>Gender</td>
<td>0.176*</td>
<td>0.226**</td>
<td>0.312**</td>
<td>0.092</td>
</tr>
<tr>
<td>Cultural</td>
<td>0.216**</td>
<td>0.329**</td>
<td>0.274**</td>
<td>0.105</td>
</tr>
<tr>
<td>Interest</td>
<td>1.000</td>
<td>0.361**</td>
<td>0.292**</td>
<td>0.234**</td>
</tr>
<tr>
<td>Personality</td>
<td>0.361**</td>
<td>1.000</td>
<td>0.358**</td>
<td>0.355**</td>
</tr>
<tr>
<td>Physical</td>
<td>0.292**</td>
<td>0.358**</td>
<td>1.000**</td>
<td>0.213**</td>
</tr>
</tbody>
</table>

Note: **. Correlation is significant at the 0.01 level (2-tailed)
* Correlation is significant at the 0.05 level (2-tailed)

Table 3: Correlation Matrix for Peer Relation to Identity Status of Identity, Personality, Physical, and Intellectual

For identity status of career, political, and intimate relationship, mostly adolescence still in diffusion identity especially in early adolescence as can be seen in Figure 4 below, and getting less diffusion across the aged. Early adolescence has not yet experienced a crisis or made any commitments for these three domains. Not only are they undecided about occupational, ideological choices and intimacy, they are also likely to show little interest in such matters. Ideally during adolescence, individual explore different interest and roles, and end up in specific adult roles, including career and work path the person wants to follow and their political view. It is help adolescence to construct an identity of who he or she is. Identity development continues to be an ongoing process throughout adulthood. Just as in adolescence vocations, ideologies, and relationship continue to remain important identity issues.
There was no significant correlation between peer relationship with identity status of career, political, and intimate as can be seen on Table 4 below. Career choices usually stabilized at emerging adulthood, especially in Indonesia who unfamiliar with part-time job. Otherwise, it is important to prepare adolescence with their career development. Some adolescent jobs actually decrease the bad unstructured leisure activities. Career and work path for adolescence can be influenced by their natural mentor, who are existing in young person’s social network, such as friends of the family, neighbors, athletic coaches, music or dance instructors, clergy, youth group leaders, bosses, or teachers. In addition, apprenticeship program, cooperative education, and internship for adolescence can enhance their occupational and academic education.

Political view and political preference also not familiar in young adolescence in Indonesia. Based on interview to 10 participants, they reported that their parents, family, or school rarely ever talked about politics. Actually, one of the changes that marked the development of adolescence is the growth in understanding the political system. Understanding of the political system can be achieved through the replication of the model from the older generation. Teenagers should be exposed to alternative political systems. This way can broaden adolescents’ political perspectives and make them more aware against political issue domestically or form different nation.
### Table 4: Correlation Matrix for Peer Relation to Identity Status of Career, Political, and Intimate

<table>
<thead>
<tr>
<th>Correlation Coefficient</th>
<th>Career</th>
<th>Political</th>
<th>Intimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peer Relation</td>
<td>0.093</td>
<td>0.136</td>
<td>0.067</td>
</tr>
<tr>
<td>Career</td>
<td>1.000</td>
<td>0.138</td>
<td>0.111</td>
</tr>
<tr>
<td>Political</td>
<td>0.138</td>
<td>1.000</td>
<td>0.161*</td>
</tr>
<tr>
<td>Religious</td>
<td>0.170*</td>
<td>0.166*</td>
<td>0.027</td>
</tr>
<tr>
<td>Relationship</td>
<td>0.160*</td>
<td>0.148</td>
<td>-0.113</td>
</tr>
<tr>
<td>Intimate</td>
<td>0.111</td>
<td>0.161*</td>
<td>1.000</td>
</tr>
<tr>
<td>Achievement</td>
<td>0.273**</td>
<td>0.119</td>
<td>0.194*</td>
</tr>
<tr>
<td>Gender</td>
<td>0.056</td>
<td>0.198*</td>
<td>-0.053</td>
</tr>
<tr>
<td>Cultural</td>
<td>0.056</td>
<td>0.114</td>
<td>0.053</td>
</tr>
<tr>
<td>Interest</td>
<td>0.207**</td>
<td>0.102</td>
<td>0.067</td>
</tr>
<tr>
<td>Personality</td>
<td>0.152</td>
<td>0.199*</td>
<td>0.030</td>
</tr>
</tbody>
</table>

Note: **. Correlation is significant at the 0.01 level (2-tailed)

*. Correlation is significant at the 0.05 level (2-tailed)

Intimacy during adolescence started from changes in definition in friendship. For children, friendship is sharing, helping, and common activities. For early adolescence, friendship is self-disclosure, common interest, similar values, and loyalty. Friendship with the other sex begin to be important for late adolescence. In this research, early and middle adolescence dominated with diffusion identity of intimate relationship. In USA, dating and romantic relationship begins around age 13 or 14 and by age 18, three fourth have had at least one steady relationship (Neemann, Hubbar, & Masten, 1995; Steinberg, 2014).

In summary, we found that identity development continues to be an ongoing process during adolescence. The results of this study indicate that the identity status during adolescence varied accomplishments in every dimension. On the dimension of religious, sexual, cultural, and relationship mostly adolescence indicate the status of achievement. Selection of religion, ethnic identity, and the role of the gender were more influence by role of parent and family since childhood through imitation and identification. The identity status of interest, personality, physical, and intellectual, still tend to be explore and not yet fully determined committed, especially in early adolescence. Career choice, political view, and intimate relationship stabilized at late adolescence. Parents, families, peers, teacher and others can help youth reflect on their identity and achieve a strong and healthy sense of self by facilitating both individuation and connectedness. Peer relation have significant correlation with identity status of relationship. Peers play important role for adolescence development. Peers provide information, social comparison, role models, feedback, and chance to test out decision making skill that adult cannot give.
Identity development is complex and multifaced. It is better understood as a series of interrelated development, such as, physical change in adolescence, cognitive development, and social role. One limitation of this research is that we measured single indicator to measure Peer Relationship during adolescence. It is important to see the cause and consequences about peer relationship through comprehensive study about peer system, sociometric status, and group affiliations. We also recommended to examine other social context in identity development, such a role of parents, family influence, and role of school or teacher, because identity formation involves commitment, with many negation and affirmation of various role.

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References


**Contact email:** laila.qodariah@unpad.ac.id
Survey About Identity Status in Indonesian Adolescence

Lucia Voni Pebriani, Universitas Padjadjaran, Indonesia
Laila Qodariah, Universitas Padjadjaran, Indonesia

Abstract
Adolescence is a period when teenagers ask themselves "Who am I?" and "What is different about me?". There are many roles which teenagers may explore and the exploration can also go through variety of ways. In Indonesia, there are a lot of problems in adolescence that emerge during the process of searching the identity in each role and dimension of life. Yet, research about identity status of adolescence in Indonesia is only a few and less recognized. This research was conducted to 156 teenagers, 10-21 years in Bandung and Sumedang, using survey as the research method. There are 11 components of Identity Status proposed by James Marchia. They are vocational, political, religious, relationship, achievement, sexuality, gender, culture, interest, personality and physical. The components are highlighted in 2 situations: (1) crisis that happen in adolescence and (2) how they take commitment to get through the crisis. From those situation, Marchia stated four Identity Status, which are diffused, moratorium, foreclosured, and achieved. The results show that the diffused identity status is most significant in political (61%) and least in religious (1%). The moratorium identity status is most significant in personality (48%) and least in gender (5%). The foreclosured identity status is most significant in vocational (21%) and religious (20%), least significant in personality (5%). The achieved identity status is most significant in religious (72%) and least in political (7%). Further research can be continued by comparing the data in Indonesia and former research in another country.

Keywords: Identity Status, Adolescence, Indonesia
1. Introduction

Adolescence is the developmental period of transition between childhood and adulthood that involves biological, cognitive, and socioemotional changes. In most cultures, adolescence begins at approximately 10 to 13 years of age and ends about 20-21 year of age. (Santrock, 2012). In cognitive aspect, adolescence begin to think about possibilities, in logical reasoning and also being able to plan ahead, to see the future consequences of an action, and to provide alternative explanation of events (Steinberg, 2014). Just as the broadening of intellectual capabilities during adolescence, provides new ways of thinking about problem, values, and interpersonal relationship, it also permits adolescence to think about themselves in new ways (Steinberg, 2014).

In socioemotional aspect, changes in adolescence not only include increased efforts to understand one’s self and searching for an identity. Changes also occur in the social contexts of adolescents’ lives, with transformations occurring in relationships with families and peers in cultural contexts (Santrock, 2014). The changes in social roles that occur in adolescence open up a new array of choice and decision that not were concern previously. In most countries including Indonesia, adolescence is a period of important decision about school, work, relationship, and the future. Facing these decisions about their place in society provokes adolescence to ask question about “who they are, what they are all about, and where they are going in life”. At this point of life cycle, young people must make important choice about their education and commitmet to other people, and thinking about these questions prompt them to ask more about themselves: “What things are important to me”? Question about the future, which inevitable arises in adolescence mind as the adolescence prepare for adulthood, raise question about identity (Santrock, 2012).

Identity is who a person believes she or he is, representing a synthesis and integration of self-understanding (Santrock, 2012). Identity is also a self portrait that is composed of many pieces: (1) The career and work path a person wants to follow (vocational/career identity), (2) Whether a person is politically conservative, liberal, or middle of the road (political identity), (3) A person’s spiritual beliefs (religious identity), (4) Whether a person is single, married, divorced (relationship identity), (5) The extent to which a person is motivated to achieve and is intellectually oriented (achievement, intellectual identity), (6) Whether a person is heterosexual, homosexual, or bisexual (sexual identity), (7) Which part of the world or country a person is from and how intensely the person identifies with his or her cultural heritage (cultural/ethnic identity), (8) The things a person likes to do, including sports, music, and hobbies (interests), (9) An individual’s personality characteristics—being introverted or extraverted, anxious or calm, friendly or hostile, and so on (personality), (10) A person’s body image (physical identity).

Identity consists of various basic elements, so that identity can be an aspect that characterizes an individual to be different from the figure of another individual. The process of identity formation can be seen through the forming of identity elements themselves. That process is a search for information and a deep understanding of the choices, called as exploration; as well as efforts to implement alternative choice over who has made it, this is referred to as a commitment.
Teenagers have always properties to find and discover new things. It is done by extracting the information as much as possible. It certainly has relevance with the exploration process in order to identity formation. The strength of teen willingness to implement alternative selected also have relevance to commitment in the process of identity formation self. Element of exploration as one aspect of adolescent identity formation, for viewing a detailed exploration process itself, needs to be parsed into indicators to be more operational. To view and assess exploration process undertaken by teenagers includes the following elements: 1) mastery of knowledge, 2) activities aimed to obtain information, 3) consider alternatives identity element 4) the emotional world, and 5) the desire to make a decision early (Marcia: 1993). Exploration is an activity undertaken to explore and find information or alternative profusely and have a relationship with an interest in future. Various information and alternatives are then compared between others. They will be selected by alternatives that are considered the most giving profits and guarantee a better future good. Searching information can be done by reading a variety of sources (books, newspapers, magazines, other media), observations of life activity in connection with parents, teachers, and people who are considered to be important. Exploration activity can also be done by asking people which has been active directly in a kind of dominant particular life. Commitment is a attitude that tend to settle and give loyalty to the alternatives that is believed as most excellent and useful for his future. Elements of commitment are : 1) mastery knowledge. 2) activities that geared to carry out identity element that has been choosen. 3) emotional tone 4) identification to right figure 5.) projection to future 6). resilient to any problem (Marcia, 1993)

Based on the two elements of identity, which are exploration and commitment, James Marcia stated 4 identity status that are highlighted in 2 situations: (1) crisis that happen in adolescence and (2) how they take commitment to get through the crisis. Two status groups were high in commitment. One group had arrived at commitments via an exploratory process and was called identity achievement. The second committed group had proceeded by taking on commitments from significant others, with little or no exploration, and was called foreclosure. Identity achievements were seen as having “constructed” identities; foreclosures were considered to have “conferred” identities. They seemed to be heirs to a bequeathed identity rather than having formulated their own via an exploratory process. The other two statuses were characterized by a low degree of commitment. Moratoriums were struggling to reach commitments and were engaged in an exploratory period. Identity diffusions were not committed and had undergone little meaningful exploration. These two groups were distinguished by differences in a sense of concern and direction. Moratorium were actively attempting to form an identity and were torn between alternatives. Their future directions were present but vaguely defined. Moratorium were, optimally, a prelude to eventual identity achievement. Diffusions were relatively directionless, unconcerned about their lack of commitment, and easily swayed by external influences.
Based on the theories above, researchers have done some research about identity status in Indonesian adolescence. Identity status in many aspect receives relatively less recognition as a core emerging phase in the “normal” adolescence years. Based on the exploration of current research at the Faculty of Psychology in Universitas Padjadjaran, Universitas Indonesia, and Universitas Gajah Mada, the research topic about identity status in children was very much found, but those research were about identity status in specialized adolescence, such as thalasemia adolescence. In Faculty of Psychology-Universitas Indonesia, there were 50 research about identity status. The research were also about the effect of some condition/demographic status to status identity (36%) or about factors that influence identity status (2%), or only one aspect/component of identity and sign of identity status (14%). Another research in identity status was a case study about forming identity in movie characters (20%). There were still a small number of research about the basic identity status in adolescence in Indonesia (4%), in many aspect/component such as vocational, political, religious, relationship, achievement, sexual, gender, cultural, interest, personality and physical. In Faculty of Psychology-Universitas Gadjah Mada, only 9 research about identity status were found.

The problem about delinquency in Indonesian adolescence had been found. The data from Badan Pusat Statistik (BPS) of Indonesia presented 6325 cases of juvenile delinquency in 2013, 7007 cases in 2014, and 7762 cases in 2015. It means that juvenile delinquency increases from year to year as much as 10,7%. The kind of cases are stealing, murder, free sex, and drug use (Putri, 2013). This delinquency is presumed as an effect of identity exploration process in specific aspect. Then, it becomes urgent to have a more explorative research in Indonesian adolescence identity status.

The process by which an adolescence begins to achieve a realistic sense of identity also involves experimenting with different ways of appearing, sounding, and behaving. Each adolescence approaches these tasks in his or her own unique way. So, just as one adolescence will explore more in one domain (e.g., music), another will explore more in another (e.g., adopting a certain style or appearance). This research is important for professionals whose role involves advising parents or adolescence that may assure them that most experimentation is a positive sign of adolescence feel secure enough to explore the unknown. Adolescence who fail to experiment in any realm are sometimes seen to be more stable but may, in fact, be experiencing more difficulty than youth who seem to flit from one interest to another (APA, 2002). The importance of this research is also providing information about particular aspect that
plays a major role in each stage of adolescence period, so parents and also professional may predict the adolescence behavior for each aspect based on the identity status in each aspect (e.g adolescence in moratorium in physical aspect probably be excited in trying some kind of hair styles or clothes).

2. Method

This research was conducted to 156 adolescence 10-21 years (19% early adolescence, 47% middle adolescence, 34% late adolescence) in West Java and Jakarta, Indonesia. Survey method was chosen to describe 11 component of identity (Vocational, Political, Religious, Relationship, Achievement, Sexuality, Gender, Culture, Interest, Personality and Physical). The survey was based on the theory about Identity Status from James Marchia that highlighted 2 situations: (1) crisis that happened in adolescence and how they take (2) commitment when they face the crisis. From those situations, Marchia stated Four Identity Status. Participant should put checklist on identity status in each identity component.

![Figure 2. Tabulation Sheet about Identity Component and Identity Status](image)

3. Result and Discussion

The result (Figure 3) from all data show that the diffused identity status is most significant in political (61%) and least significant in religious (1%). The moratorium identity status is most significant in personality (48%) and least significant in gender (5%). The foreclosed identity status is most significant in vocational (21%) and religious (20%), least significant in personality (5%). The achieved identity status is most significant in religious (72%) and least significant in political (7%).
Researchers also count the percentage of each category of adolescence age, which are early adolescence (10-12 years old), middle adolescence (13-17 years old) and late adolescence (18-21 years old). The following is the diagram about identity status in each aspect of identity in each category of adolescence age:

**Figure 4: Diagram of each component identity in each category of adolescence.**

From Figure 4, we concluded that sexual aspect emerge in diffused identity status in all category of adolescence (77% in early adolescence, 60% in middle adolescence and 57% in late adolescence). Political aspect also became diffused identity, especially in middle adolescence (from 17 years old) and late adolescence, who have previleged to participate in political activity such as election of president or government officer. The percentage of diffused identity status in politic aspect is the highest in 2 category of adolescence (71% in middle adolescence and 58% in late adolescence).
adolescence), but the lowest is religious (0% in early and late adolescence, 1% in middle adolescence)

The highest score for foreclosed identity status in early adolescence is gender and ethnic (23%), in middle adolescence is political (29%) and in late adolescence is vocational (23%). However, the lowest score in diffused identity status is religious in early adolescence (0%), middle adolescence (1%) and late adolescence (0%)

The highest score for achieved identity status in all category of adolescence is religious (early adolescence 60%, middle adolescence 71%, and in late adolescence is 75%). Moreover, in middle and late adolescence, gender also achieved identity status (middle adolescence is 79%, late adolescence is 87%). The lowest score for achieved identity status in early adolescence (20%) and middle adolescence is sexual (11%), but in late adolescence is political (17%).

The highest score for moratorium identity status in early adolescence is personality aspect, in middle adolescence is vocational (44%) and achievement (44%) and in late adolescence is achievement (57%) and vocational (49%). The lowest score for moratorium identity in early adolescence is vocational (10%), gender (1%) in middle adolescence and in late adolescence are gender (6%), ethnic (6%) and religious 6%.

Based on the result above, the components that are significant (either highest or lowest) in Indonesian adolescence are sexual, political, gender, ethnic, religious, vocational, achievement and personality. Since the limitation of this research is there isn’t any data to explain the result, researchers did the literature review from some research about identity status in adolescence in Indonesia and also from other countries. The following is the discussion about each component of identity:

A. Sexual

Sexual identity or sexual orientation is typically defined by the nature of one’s sexual attraction to men, women, or both (LeVay & Valente, 2006). Beyond this basic definition, various components of sexual orientation include sexual behavior, romantic attraction, and sexual orientation identity (Laumann, Gagnon, Michael, & Michaels, 1994; Savin-Williams, 2009). Based on this research, Indonesian adolescent didn't explore their choices or didn't face crisis and also did not take a commitment about sexual identity (Diffused identity status).

Based on research from Ahmad Aulia Jusuf (2006), 75% among young people do not get explanation at all from her parents about the subject of sex. While the rest (25%) of young people only get a little explanation. In Indonesia, sex is seen as a taboo. It makes teens explore sex on their own by searching information from others. Sometimes teens are reluctant to ask parents or teachers. They prefer to search information or try sexual behavior on their own.

B. Achievement and Vocational

Achievement becomes a more serious business in adolescence, and adolescence begin to sense that the game of life is now being played for real. They even may begin to perceive current successes and failures as predictors of future outcomes in the adult
world. And, as demands on adolescents intensify, different areas of their lives may come into conflict. Adolescents’ social interests may cut into the time they need to pursue academic matters, or ambitions in one area may undermine the attainment of goals in another, as when academic achievement leads to social disapproval (Schwartz, Kelly, & Duong, 2013).

Achievement during adolescence years, merits special attention for several reasons. First, that adolescence is a time of preparation for adult work roles raise questions about the nature of the preparation young people receive and the process through which they sort themselves into the occupational roles that may influence the reminder of their lives. Many factors that narrow an individual’s educational options and vocational alternatives are prominent during the high school and college years, and it is important to ask how such options are defined and what age educational ad occupational decisions are made.

As we seen in middle and late adolescence, the aspect of vocational and achievement became the most significant issues that adolescence still explores until late adolescence, without taking any commitment. Based on the research, 61% high school students didn’t realize where they should study further. In such a state of urgency, teenagers took the decision to choose the subject majors that are affected by parents and peer group (peers), where such advice is subjective. Supriatna (2009) stated that students do not understand how to choose courses that match the skills and interests, students do not have information about the world of work, the students are still confused to choose a job, students are still less able to choose a job based on ability and interests of students anxious to get a job after graduation, the students do not have an overview of the characteristics, requirements, capabilities and skills needed in the job and the job prospects for the future of his career. Creed, Patton, and Prideaux, (2006) revealed that as many as 50% of students experiencing confusion in decision making. One factor is so many choices of education and types of jobs available, and the need to know the values of life and the purpose of what is needed in the choice of career. In addition, the limited exploration and experience on the role model of career interests and aspirations of the students related to a particular career field often a stereotype or something that has patterned and limited. Limited information on careers make students choose according to what is known. Sung-Ok Serena Shim (2008) stated that achievement goals declined during early adolescence with pronounced drops within school years. Students’ goal adoption differed as a function of gender, race, and prior achievement.

C. Political

Much of the developmental literature on political identity has focused on civic participation and its antecedents. Research suggests that emerging adult citizenship activities (e.g., voting, serving on juries, staying informed about important local and national issues) may be predicted by academic and social competence in adolescence (Obradovic’ & Masten, 2007) and by connections to parents, school officials, neighbors, and other adult figures (Duke, Skay, Pettingell, & Borowsky, 2009). Sherrod (2008) found that adolescents’ beliefs about civic responsibilities were associated with their beliefs about the types of services and freedoms to which people should be entitled.
In this research, participants that gave answer about identity status in political aspect are 17-21 years old adolescence, who have previlege for voting or participating in political activity such as election of president or goverment officer. In Indonesian adolescence, politic became the highest diffused identity achieved and foreclosed identity status. This result means that most Indonesian adolescence didn’t take any commitment on their political orientation or they took comitment about their political orientation without exploration.

There is only a small number of research about political identity in Indonesian adolescence. Research about politic in adolescence in Indonesia is about adolescence participation in politic or the effect of family or media to adolescence participation in politics. Research from Zuhri (2010) stated that senior high school students in Semarang, Indonesia have opinions about politic such as 65% participants said that politician never keep their promises and also 54 % participants said that politician often spends money of the government, and 84% participants said that politician never fight for people rights.

D. Gender

Gender identity refers to “one’s sense of oneself as male, female, or transgender”. When one’s gender identity and biological sex are not congruent, the individual may identify as transsexual or as another transgender category (American Psychological Association, 2006). Based on the result, gender as part of identity status was perceived by Indonesian adolescence, especially in early adolescence. They take commitment on the sense of their selves as male or female without any exploration. When they enter the middle and late adolescence, they have explored their choices on gender and also have taken commitment about their gender.

E. Ethnic

Ethnic identity is an individual sense of himself in his membership in particular ethnic groups (Tarakanita, 2011). This definition was operationized by part of the world or country a person is from and how intensely the person identifies with his or her cultural heritage (Santrock, 2011). Based on result, Indonesian adolescence already took commitment about their ethnicity without exploring the choices. Based on research from Rotheram-Borus & Whyce (Suharno 2007) stated that Asian parents are more demanding on compliance and conformity to the norms of ethnic groups than Europeans and Americans. This is evidenced by the number of activities or celebrations related to the values of local wisdom that is still inheritable. For example, in Java ethnic community there is a celebration of salvation, circumcision, and wetonan, as well as in ethnic Chinese there is a celebration of sin chia, cap go meh, and ceng beng.

The existence of the individual in a homogeneous environment also increasingly become a booster for parents to engage their children in various cultural activities related to the ethnic adopted. In other words, teenagers in Eastern culture does not need to seek information and experience relevant to the ethnic, but a homogeneous environment has become a source of information and experiences for young people to carry out the exploration of ethnic identity. Indirectly, the participation of young people in various cultural activities will increase their exploration efforts against ethnic groups.
F. Religious

Religious identity is a person’s spiritual beliefs (Santrock, 2011). The result of this research shows that the religious aspect is the highest score for achieved identity status in all category of adolescence (early adolescence 60%, middle adolescence 71%, and in late adolescence is 75%) and the lowest score in diffuse identity status. The data means that Indonesian adolescence already took a commitment on their religious belief after they explored the choices.

Research from Ueker (2008) stated factors that are specific to participation in religiousity. They are the involvement in religious community consisted of religious service attendance, religious education class attendance, and youth group participation. Markstrom-Adam (Fulton, 1997) stated that the frequency of churching is correlated with religious identity. Wahyuningsih (2009) stated that Indonesian adolescence in foreclosure religion identity have parents that adjust the religion totally and do the worship of both sunnah and wajib. The research of Hanijar (2015) about Descriptive Study about Religious Identity Status of Bandung Islamic University Students shows the result that 44.85% of the subjects have integration religious identity status, 35.51% of the subjects have foreclosure identity status, 2.8% of the subjects have moratorium identity status, 0% of the subjects have diffusion identity status, 15.88% of the subjects have foreclosure-integration status, and 0.93% of the subjects have moratorium-integration status.

G. Personality

Personality was the highest score that forming moratorium identity status in early adolescence. It means that 10-12 years old teenagers still explore about personality and not take commitment about personality yet. The results of this data are in line with the results of the study. The results of this data are in line with the results of the study research from Lamb, Chuang, Wessels, Broberg, and Hwang (2002) who examined the development of personality in children and adolescents (2.3 years old-15.2 years old) using Big Five Theory which measures 5 dimensions of Extraversion or Positive Emotionality, Neuroticism or Negative Emotionality, and Conscientiousness or Constraint, states that neuroticism and openness are elevated early in adolescence and decline in middle and late adolescence. (Canals, 2005). They also stated that personality was not stable in the age range of adolescence.

4. Conclusion

Based on the result and discussion, we conclude that Indonesian adolescence is in the highest diffused identity status in sexual and political component, and the lowest diffused identity status in religious component. However, the components that became the highest achieved identity status are religious and gender components. Still, the lowest achieved identity status are sexual and politic components. For moratorium identity status, the component that shows the highest score is personality and the lowest is gender component. Last, the components that are considered to form foreclosed identity status in Indonesian early adolescence is gender and ethnic, in middle adolescence is political and in late adolescence is vocational. However, the lowest score in diffused identity status is religious component.
The limitation of this research is there isn’t any data from Indonesian adolescence as participants to explain the result. For further research, it would be better if the researcher gathers the data about factors that affect or contribute to each identity status for each component of identity. The larger number of participants from each area in Indonesia also have to be considered.

5. Acknowledgements

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**Contact email:** lucia.voni@unpad.ac.id


**Psychological Disposition in Qualitative Research**

Ajay Gupta, Vivekanand Institute of Management Studies and Research, India

The role of psychological disposition is utmost important in qualitative research. It influences the quality of information and its authenticity. The paper examines the role of psychological disposition and its impact in conducting qualitative research. We reviewed Guba model to ensure credibility in qualitative research and analyzed with our field experience. We conducted qualitative research using semi structured in depth questionnaire for middle level and top management bank employees. Respondents’ apprehension to reveal real information was influenced by their culture and personal experience. Respondents with adverse experience expressed confined information and became skeptical, whereas respondents with positive experience expressed unconfined information. However, confidence measures and trust building about their opinions played constructive roles.

Our preliminary result suggests that carefully addressed issues and trust building measures go long way to acquire adequate and reliable information from respondents. We conclude that psychological disposition plays crucial role to strengthen credibility in Guba model. This ensures trustworthy outcomes and provides scope for future research.

Keywords: Psychological disposition, credibility, trust building, reliable information, culture
Psychological Disposition in Qualitative Research

Psychological disposition plays the significant role in qualitative research. It influences the quality of data and its outcomes. Hence, it affects the believability of research findings and its applicability. There are many models to ensure creditworthiness of data. For example, rigor (Lincoln & Guba, 1985; Leininger, 1994; Rubin & Rubin, 1995), reliability and validity (Altheide & Johnson, 1998; Leininger, 1994) in qualitative research makes research inquiry trustworthy (Guba, 1981). Guba & Lincoln (1985), proposed naturalistic inquiry and suggested four paradigms establish trustworthiness- truth value- credibility, applicability-transferability, consistency-dependability, and neutrality- confirmability. They provided four criteria to ensure trustworthiness- credibility, transferability, dependability and confirmability. To ensure credibility in qualitative data, the researcher should use prolonged engagement, peer briefing, triangulation and member checks. Transferability means researcher should provide the thick description and should use purposive sampling. Dependability means creating an audit trail and triangulation. Confirmability should use triangulation and practice reflexivity. In other words, credibility refers to how true are the findings. Transferability refers to- whether findings are meaningful to other people in similar situations. It is also parallel to external validity. Dependability refers to- can the study and findings be replicated under similar conditions and confirmability refers to – how free are the results from research bias (Lincoln & Guba, 1981).

Credibility is not only restricted to qualitative research but quantitative research as well. Few authors argued that the broad and abstract concepts of reliability and validity can be applied to all research because the goal of finding plausible and credible outcome explanations is central to all research (Hammersley, 1992; Kuzel & Engel, 2001; Yin, 1994). Guba and Lincoln substituted trustworthiness for the rigor (1981). Rigor in research depends upon the kind of paradigm followed. And hence, criteria to ensure rigor in rationalistic paradigm is different from the naturalistic paradigm.

In four dimensions of Guba model (1981) to ensure trustworthiness of qualitative research, we find some scope to strengthen the credibility paradigm. We feel that psychological disposition of researcher and respondent plays role in influencing the credibility of data and findings. Psychological disposition refers to the feelings and attitude of researcher and respondents towards their contexts and people. It includes the experiences, perception, and process of establishing communication during the research process. Such psychological disposition is important to address. They do influence the quality of information shared and its authenticity.

This observation is the direct experience of the researcher during his data collection in the field. The researcher was conducting research to understand the morale in the banking industry in India where he was engaged in collecting audio recorded semi-structured interview with managers, board members, top management and retired chairmen (Gupta, 2014). During data collection, the researcher observed that respondents used to share socially desired response during the interview phase. As soon as, the interview used to finish, their reactions were different than what they had responded before. Some respondents offered positive responses and overlooked any shortcomings because they had the good experience. Despite visible issues, they preferred to provide positive responses. Some respondents were critical in their responses. They overlooked positive aspects and only discussed the negative aspects.
During interactions, they shared that they faced discrimination and hence their reactions were critical.
Similarly, the researcher might have spoiled experience in the context where he is conducting research. It is more likely that his perception and attitude towards people and its context may shadow the reality. Since the researcher is one respondent in the qualitative research, his/her experience should be documented. Interpretation and discussion should be verified using the researcher experience and relations with respondents and its context. This could be one way to minimize researcher’s bias. Similarly, respondents’ bias can also be addressed and minimized.
Credibility in Guba model addresses many issues to ensure trustworthiness of data and its findings but unless psychological disposition of researcher and respondents are included in the data collection process, ensuring credibility may suffer from authenticity. Therefore, the paper examines the role of psychological disposition and its impact in conducting qualitative research.
Finally, we propose the model to ensure credibility in Guba model (1981). In other words, we strengthen Guba model for ensuring trustworthiness in qualitative research.

Credibility in Guba model
Credibility is concerned with the validity of the conclusions that are drawn from the data and how these conclusions match the reality being reported on. Sufficient time spent with informants to find out the recurrence of theme increases the credibility (Leininger, 1985). Lincoln and Guba (1985) and Kielhofner (1982) supported the importance of intense participation/prolonged engagement with respondent. We provide scope to enhance credibility in the model.
In Guba model, there is the dimension for member checking and respondent validation. It also includes debriefing of the researcher with their supervisor etc. The objective is to ensure validity and reliability through triangulation. The process enhances the credibility of research. However, the process of confirmation with the respondents may face problems. For example, during data collection, the qualitative researcher notes his field experiences, observations and many things that respondents have not expressed but shared their experiences during interaction process. Many times, respondents share their experiences openly when they know that their responses will not go on the record. When the researcher presents interactions with interview content to the respondents, they may not accept it. They might question it. They may also claim that they have not shared such information any time before. Reasons could be many.

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<th>Strategy</th>
<th>Criteria</th>
<th>Interpretation</th>
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<tr>
<td>Credibility</td>
<td>Prolonged and varied field experience</td>
<td>Researcher’s experience in the field decides time spent. Overinvolvement with respondent may influence interpretation. Therefore, reflexivity is useful. Perception, background, experience of</td>
<td>Perception and experience of respondent is missing. Quality of communication and interaction, and attitude Environment, time and proximity</td>
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Referential adequacy

Trust between researcher and respondent

Value creation

Genuineness of research outcomes and future scope

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<th>Referential adequacy</th>
<th>researcher comes into play. Three types of information- method logs, strategy, field notes (thoughts, feelings, ideas, biases or preconceived assumptions).</th>
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Figure 1: Criteria for trustworthiness of qualitative research

Credibility suffers from authenticity when respondents prefer offering the preferred social response (Kirk & Miller, 1986). Researcher’s prolonged involvement may help to identify and detect the occurrence of ideal responses. Similarly, observations and multiple interviews may help to detect such responses. It can help elicit more personal responses. The environment where data is collected plays role in influencing credibility. The hygienic environment may more likely to encourage open responses whereas toxic environment may more likely to discourage open responses. Therefore, the researcher should note all possible situations, social settings, times of the day, week and season and interactions among different social grouping (Knafl & Breitmayer, 1989). At the same time, the prolonged involvement of researcher in the field may not always possible. It depends on the time available with respondents, their working environment, their perceptions and their willingness to spare time for the researchers. In the organizations, prolonged involvement may be viewed differently by the colleagues and superiors as well.

During my data collection in the banking industry, first, it was extremely difficult for me to connect with the respondents. Repeated communication was even more difficult. A mobile number was identified and it was difficult to even make contact again. Many times, I used new number to get contact with the respondents (Gupta, 2014). Further, the respondents were very conscious about the timing spared. I wanted to spend more time, but there was little room for it. In such cases and in similar organizations, it will be extremely difficult for the researcher to have prolonged involvement with the respondents. And therefore, it may not be always possible to understand what is preferred social response (Kirk & Miller, 1986), and what is real response. However, one strategy was useful to distinguish real response. I truncated the interview time when I used to record their responses and increased the interaction timings. Much useful information used to emerge during informal interactions. They used to respond to many questions that they preferred to skip during the interview period. Much of the real information came out after the interview was over.

If the researcher documents shared information that was not on the record and shows it to respondents for their verifications, they are more likely to question it. They may also question researcher’s claim for confidentiality of information etc.

**Rationale**

The quality of outcomes in research depends upon the quality of data and quality of information. Qualitative research tries to increase the worth of the findings by decreasing the distance between the researcher and the informants (Krefting, 1991). We have addressed four phases of qualitative research- pre-research, in-research, process and outcome phase. Each phase has its own dimensions that require understanding from researcher side. We have addressed pre-research and in research
phase that includes researchers and respondents psychological disposition. It is critical to understand such issues. The quality of data is the process phase that depends upon the quality of interaction and communication between researcher and respondents. And finally, the authenticity of outcomes decides the scope of application and further exploration in the area.

The paper addresses four phases of qualitative research that determines the quality of outcomes.

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<td>Attitude</td>
<td>Value creation</td>
<td></td>
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<tr>
<td>Respondent</td>
<td>Experience</td>
<td>Environment</td>
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<td>Perception</td>
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<td></td>
<td></td>
<td>Proximity</td>
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</tbody>
</table>

Figure 2: Phases of qualitative research

**Researcher’s dimension**

**Pre-research phase**

**Identity**

Researchers engaged in quantitative research seek to maintain impersonal objectivity in their experimental methods and in their analysis of the data. Qualitative research offers the platform to investigate human and social conditions that may not be addressed by quantitative methods alone. The identity of researchers in qualitative research plays the crucial role. Besides the individual identity, the researcher should have background ideas, concepts, and practices in the specific context. Their personal involvement and candidness are desired. Researcher's identity is important to understand his relations to the research context. It is even more important to know researcher's perception with the contexts and respondents. While it may strengthen research process, it may also deter the quality when researcher's bias influences more than what emerges out of research. As per Norton (2000:5), identity refers to the relations of the researcher to the world. And how such relationship is constructed across time and space, and how the researcher understands possibilities for the future.

In most interviews, the main aim is to evoke information. And general question researcher raises, what is your opinion or tell something about the topic etc. And they are the most common open-ended question in any kind of interview. The core objective about such information gathering is to enhance understanding of the issue in question. In the process, the researcher needs to clear away once and for all the natural assumption that the interview is simply a matter of gathering facts (Richards,
There is need to dig deeper to quest for understanding complexities, dynamics and practices to achieve better information. This helps to establish the relationship with people, environment and their perception of the world. The researcher should show empathy towards interviewees. Any mental cobwebs can hamper the researcher's judgment, perception, and opinions during the investigation. Encourage respondents to keep talking with minimal interruptions. Always one should remember the golden rule for interviewing: Always seek the (Richards, 2003:53) specific events, and let attitudes and beliefs emerge from this context. A good interviewer is a good listener (Richards, 2003: 53). The researcher should also develop an ability to handle natural distractions during the process of interviews.

Experience

Researcher’s experience influences the qualitative research process. A researcher with substantial experience of the context may develop the deep understanding of issues, challenges, and practices prevalent in the context. He may also gain the better understanding of difficulties and motivation associated with respondents. Contrary to this, researcher’s moderate or surface level understanding of people and its context may influence the quality of information. It may suffer from reliability. And when it influences, it raises the questions of integrity and honesty in conducting qualitative research. It underpins the ethical practice in all the activities that includes data collection and analysis phase. The researcher must follow research principles that do no harm to respondents and stakeholders. And It is important to present the facts before interviewees to gain their opinions and responses. Most importantly, it is ethically desired that researcher should portray the views and feelings of respondents as accurately as possible as the part of the epistemological process. Therefore, the experience of the researcher may influence the research process. Many times, integrity may be compromised and complicated based on how researcher gets influenced by his experience and intention. In a sense, qualitative research is not neutral or objective. It gets influenced by researcher’s experience and intention.

Perception

Researcher’s perception towards the organization and its people does influence research process. Further, it can affect the quality of data and its outcomes. In qualitative research, researcher itself is one respondent. And, he must have developed relations with contexts and its people. Such relations may have created an impression in the mind of the researcher. Once access to the field has been granted and the first step of data collection is taken, researchers may experience ethical dilemmas that may not have been anticipated in the research plan (Field & Morse, 1992). To overcome such issues, it is better to introduce the research, clear instructions, guidelines and limitation of the research. Ethical dilemmas that may emerge from an interview are difficult to predict but the researcher needs to be aware of sensitive issues and potential conflicts of interest. Other authors agree that all research involves subjective perception and that different methods produce different perspectives, but, unlike the anti-realists, they argue that there is an underlying reality which can be studied. (Hammersley, 1992). The philosophy of qualitative and quantitative researchers should be one of “subtle realism”—an attempt to represent that reality rather than to attain “the truth.” (Kirk & Miller, 1986).
Ramos (1989) described three types of problems that may affect qualitative studies: the researcher/participant relationship, the researcher’s subjective interpretations of data, and the design itself. At the end, it is important to note that identity, experience, integrity, intention and perception of the researcher plays the crucial role in the process of qualitative research.

**Pre-research phase: Respondent Experience**

Respondent’s experience does influence the qualitative information. This includes respondent’s relations with its environment and people. It goes a long way to influence views of respondents. Respondents with encouraging experience may provide positive image about the organization. Similarly, respondents with pernicious experience may try to express their feeling in a different way. In either case, data is influenced. And it is important to find out ways to get reality. Simultaneously, how does the respondent view the research, affect the response? During my data collection phase, I could clearly experience how experienced respondents could understand the question deeply and could respond properly keeping the various linkages. Their responses were rich and they also used to suggest measures improve practices or situations. In fact, their responses used to be holistic covering multifold dimensions. They showed their curiosity to speak up. Contrary to this, respondents with less experience were not aware of many dynamics and relations in their contexts. Therefore, their responses were not as insightful as those of experienced people.

Respondents with substantial experience of the context may develop the deeper understanding of issues, challenges, and practices prevalent in the context. They may also gain the better understanding of difficulties and motivation associated with their colleagues. Experience shape their perception towards the organization, people, and its environment. And it does affect their responses and reactions. A good researcher should keep such issues in mind and find out ways to delve into realities.

**Perception**

The respondents’ perception is their view towards issues. They tend to develop perception towards their contexts and people based on their experiences. Employees emotionally attached to their supervisors may have developed the positive image of the organization. Employees posted at the choice place might also have the good image about the organizations and hence more likely to speak good things. However, employees struggling to get choice posting might have different opinions. Thus, it is important to understand respondents’ positions and obstacles faced. This will help the researcher to understand respondents’ view better. When emotion plays a role, realities get distorted either positively or negatively. For example, emotion enables individuals to modulate the experience and expression of positive and negative emotions (e.g., Bridges & Grolnick, 1995; Cicchetti, Ganiban, & Barnett, 1991; Gross, 1998; Kopp, 1989; Thompson, 1994).

In pre-research phase, the respondent’s view towards the organization, people, and its environment influence his response. The researcher should develop an ability to find out an emotional response from the real response. Personal or professional injury faced by an individual in his/her context may shadow its response. And that is why a good researcher should raise the question about the personal experience of the...
respondent. Such questions should include questions like- could you share moments when you feel/felt proud of or not proud of. Such questions can reveal their feeling and attitude. It is equally important to understand the perception of the respondents towards the researcher. Why any respondent spare time for you? Or why the respondent should reveal the facts to you or what the respondent will gain from your research etc.? Such questions are obvious from the respondents. Therefore, the researcher should address such questions before data collection starts. Any assumption or avoidance on these parts may impede the quality and proper information.

**In research phase: Researcher Communication**

The research phase is the second phase in data collection process where the researcher gains access to the participants. The researcher should establish rapport with participants to get good data (Creswell, 2003). And it is important to develop mutually agreed protocols between the researcher and the respondents. Protocols should generally be in written form and should be communicated to the respondents before data collection starts. It is natural for the researcher to face unexpected issues during data collection. For example, the respondents might have some appointment and may leave during the interview. Alternatively, He might not provide the right information etc. the researcher should anticipate such issues known as “field issues” (Creswell, 2003), during data collection. Field issues provide very important information during transcription and analysis. It is also important to find out the respondents who are willing to provide information and are accessible. Plummer (1983) recommends two sources of individuals to study. First, individuals met on a chance encounter, or volunteers. Second, the researcher might identify a “marginal person”, “great person”, or an “ordinary person”, etc. Such sources have potential to invite data from multiple angles. Each participant has a story to tell. And researcher should construct the collective story that represents the issues and experiences of people.

How researcher establishes communication with the respondents, goes the long way in creating relationships. It also makes the platform to either ease the process or make it difficult. Proper and timely communication conveyed properly to respondent makes a responsive platform. However, any lacuna in communication process may create weak relations that can further hinder the quality of feedback.

**Researcher-respondent Interaction**

Interaction plays an instrumental role in revealing information from the respondents. It builds relations between the researcher and the respondents. And it helps to bring out more information. Interactions in research refer to the informal communication with the respondent. This process makes respondent at ease. During data collection process, respondents become conscious and may provide filtered information. They may also hide some information anticipating unfavourable consequences in future. Even though protocol between researcher and respondents addresses such possibilities; the respondents tend to become hesitant. When the interview is over, respondents become relax and they may more likely to engage in informal talks. That is the point when the researcher starts getting much useful information that was perhaps not captured during the interview process.
In qualitative research, a generally in-depth questionnaire is used. And the researcher collects audio recorded data. Many times, the researcher keeps note of responses in front of the respondents. During the data collection phase, the respondent might be conscious about the type of information he or she is revealing. It could be natural as it is going into record even though many ethical issues and concerns have been clarified before starting the interview.

**Attitude**

In qualitative research, the researcher is also one respondent. His attitude towards context and its people does influence research process. Having right attitude can bring more meaningful perspective and hence bring insightful information. Therefore, the role of the researcher becomes critical. How researcher views the respondents and its environment influence the data and its process. During my data collection process for Ph.D., one respondent expressed an unfavourable attitude towards one top management respondent, when I tried to influence him quoting management name as one of my respondents. He started showing his displeasure and discomfort. He said, do not try to influence me. I was clueless how should I proceed. I kept quiet for a while. And I politely suggested, Sir, you are free not to respond and I have no issue in this. However, I have this letter with me, you can just have look on this. This was the ethical letter with the protocol that no data, information and person’s name will be revealed. I had already sent the letter to the respondent through email. He started reading it carefully and said, Can I keep this letter? I immediately said, Sir, this is for you only. You can keep it. He pressed the bell and called his peon to take the photo copy of the same. He kept in his file. He appeared responsive by then. With his permission, I started the interview and it got over within 18 minutes. Most of my interviews had lasted for more than 30 minutes. When I engaged into informal interaction after the interview, he started sharing useful information, that I was expecting. During his informal interaction, he revealed much crucial information that clearly showed how his promotion got delayed and he felt discriminated from management. His experience created his attitude towards management.

**In-research phase: Respondent Environment**

The environment of the context has a deep link with the respondent’s feelings and responses. Reactions and responses are more driven by the working environment. The positive working environment may encourage more open responses. Similarly, a toxic environment may preclude open responses. It is important to know how the organization views people opinion. Many organizations encourage openness and autonomy to their people. Respondents in such organizations are more likely to respond enthusiastically and can provide useful information. They are more likely to refer to other respondents. However, many organizations keep watch on employees’ opinions. They view it negatively and hence respondents in such organizations are more likely to withhold the truth. They are more likely to provide a socially desired answer that fits everywhere. Questions like how are your working environment or how much do you like your working schedule etc. might help to understand whether responses are influenced or real. Even though such questions may not be part of the questionnaire, they have potential to bring out credibility in the data.
The researcher is not always aware of the internal working culture of the organization or context. Therefore, it is important to understand the culture as an influencing factor of responses.

**Time**

The researcher needs to understand the schedule of the respondents. Data collection when respondents are mostly busy in their work, may not offer meaningful information. This may also suffer from proper justification. Unless, respondent has spared time for researcher, busy time schedule should be avoided. However, the researcher can acquire working practices during busy schedule by observation. Responses collected during busy schedule might be incomplete and inadequate. Respondents may be more likely to offer shortcut answers.

It is extremely important for the researcher to prefer timing when the respondent has spare time and not busy in his routine work. It might not be always possible. However, the researcher should always make effort to schedule an interview in spare and convenient time based on respondent’s preferences.

**Proximity**

Working environment and respondent experience can affect their responses. Respondents might become more conscious especially in a fearful culture where your words can be twisted in a different way. Respondents in such environment may not prefer to speak in presence of other people.

Even though respondents respond, they may be more likely to articulate their responses to appear right. They might not want to create a poor impression before their colleagues. It is suggested that researcher should find a place with minimum interruption. This can bring out more open information and feedbacks. Such issues are more relevant to an environment where people are fearful. They are more likely to withhold their feelings in the presence of their peers. Researchers should document the situation as for how was the proximity or who else were present in the situation.

**Process phase**

**Credence**

Well addressed issues and proper communication with the respondent can enhance the credence with the respondents. When respondent believes that researcher has a responsive and significant purpose of conducting research, it increases the credibility of the researcher and his mission. Understanding and respecting respondents’ feelings is crucial in developing credence in research. Showing empathy towards respondents goes long way in developing credence.

**Trust level**

Credence leads to increasing trust level between researcher and respondent. Trust is extremely important to get the truth in research. Respondents may not reveal the truth when they do not believe researcher. They also may not provide the proper information when they develop apprehension about disclosure of their identity and information at a later stage. Therefore, making high trust level between researcher and respondent is important to get the true picture.
Value creation

The researcher must see value for his research for respondents. It is natural for respondents to assume as for why they should provide information? Why should they spare their time and why should they invite trouble if anything is known about them? Unless respondent is convinced about such issues, it might be difficult to get true information. The researcher should understand such natural assumptions and should develop an ability to answer them. Research is aimed at developing, people, society, and relations. The researcher should relate his motivation to take care of the respondents in the terms of their advancement, welfare, and opportunity. During my data collection, everyone was asking why you want to conduct research in this organization? Nothing will change, and things will remain same. Who will listen to your ideas etc.? Such reactions could be natural when people are discouraged and do not see any improvement in their environment and with their superiors. It is always better to collect information and present before respondent in the term for future and expected benefit of the research. The researcher should also make the promise to provide further development of his research to respondents from time to time. Respondent should be respected for his contribution, experience, and concern for the researcher. He should realize the expected benefit for his contribution to his environment and people.

Outcome phase

Genuineness

The genuineness of data decides the genuineness of outcome. And hence, an outcome may be questionable when data is not genuine. In qualitative research, every aspect of data collection is important. Assumption that responses are enough to arrive at findings, may mislead result. Building high degree of trust between researcher and respondent goes the long way to deciding the quality of data. All the above mentioned three phases decide the genuineness of data and its findings. Responses are just reactions based on experiences, perception, personality and attitude of both researcher and respondents. Unless these issues are considered, any data may lack authenticity. Therefore, trust level in research positively influences the quality of data.

Scope

Any good research provides further scope to carry forward the research. Credible information and authentic outcomes provide the deeper understanding of issues and its possible solutions. It provides powerful scope to apply suggestions and insights to develop people, culture, and its relations. It automatically leads to enhance performance.
Conclusion

In organizations, there are many sensitive issues where respondents are not candid. During my field visit for data collection, many respondents kept quiet when questions were related to whistleblowing, favoritisms, and connections. They had apprehension that in case something is known to their superiors, they may face requital. Such issues can influence the researcher as well (Kellehear, 1989; Perry, 1989; Sieber & Stanley, 1988; Wax, 1971). They may not get proper information. Such issues are sensitive topics as they have potential to harm respondents. Raymond Lee (1993:16) highlights that researchers need to find ways of dealing with the problems and issues raised by research on sensitive topics. The threats which the research poses to research participants, to the researcher, and to others need to minimize, managed or mitigated.

Qualitative research essentially captures the human aspects. Data has no meaning without understanding and including the psychological dimensions. The nature of qualitative data is personal; therefore, the information should be based on personal relations with the respondents. The researcher should develop relations for the sake of conducting research. Such relations can last long as researcher presents, confirms and further modifies research process. Responses are always laden with researcher field experience. Unless they include their field experience to interpret their data, they may not find truth in research. Words may not provide the holistic picture.

Therefore, we conclude that psychological disposition plays the major role in qualitative research. And Guba model (1981) to ensure trustworthiness in qualitative research is one of the highly-appreciated models. It is holistic and captures very important dimensions in qualitative research. However, we suggest that credibility in Guba model can be strengthened if suggested points are included in the qualitative research.
References


Prevalence of Aggression Dimensions in Children with Autism According to Some Variables

Elsayed Saad Elkhamisi, Arabian Gulf University, Bahrain
Maryam Almutery, Ministry of Education, Kuwait

The Asian Conference on Psychology & the Behavioral Sciences 2017
Official Conference Proceedings

Abstract
The current study aimed at exploring the level of aggression for children with autism according gender, age and intellectual state in the state of Kuwait. The study was conducted on a sample of parents for (108) children with autism, children ages were ranging from (5) to (16) years who have been attending of the autism centers in the State of Kuwait. The study used the aggression scale which includes (3) dimensions: aggression toward others, aggression toward self, aggression toward things. The results showed that aggression toward others was the most highest subscale, followed by aggression towards self, then aggression toward things. The most higher aspects of aggression was: appear obstinacy and refusal when asking him to do something, pinching others in a state of anger, kicking others with no apparent reason, throwing himself on the floor, and hitting himself with his hand or any part of his body. The results also showed that there is a statistically significant differences between males and females on aggression toward things favor females, While, no statistical significant differences between them on aggression toward others, or the total score for aggression scale; there is no a statistically significant differences between according age stages and intellectual state on all aggression subscale, either toward others, nor aggression toward self nor toward things, or total score for aggression scale.

Keywords: Autism, aggression, state of Kuwait.
Introduction

Autism is commonly described as a disorder that accounts for wide variability among individuals in their ability to adapt and function in daily life. Within the autism spectrum, children may exhibit different combinations of specific behaviors ranging from mild to severe. Moreover, the presence of symptoms and degree of severity may change over the lifespan. In light of this variability, obtaining an accurate diagnosis of autism is exceedingly complex (Nasr, 2002).

The Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR, 2000) described Autism as a sub-category of a Pervasive Developmental Disorder (PPD), which include: Autistic disorder Asperger syndrome, Rett syndrome, disintegrative disorders, and pervasive developmental disorder not otherwise specified (PDD-NOS) (Alice, Carter, Kiln& Volkmar, 2005). DSM-IV in its revised fourth edition agreed with The International Statistical Classification of Diseases and Related Health Problems (ICD) which produced by the World Health Organization (WHO), and both identified three main diagnostic criteria of autism; as the main symptoms that appear on people with autism, these characteristics triad of symptoms were: impairments in social interaction; impairments in communication; and restricted interests and repetitive behavior, and these symptoms appears in the first three years of the child's age (Bolet et al., 2011).

Children with Autism are suffering from many challenging behaviors, this behavior is most frequently defined as behavior of such intensity frequency or duration that the physical safety of the person or others is to be placed in serious jeopardy, or behavior which is likely seriously to limit use of, or result in the person being denied access to, ordinary community facilities (Emerson & Bromley, 1995). Severe challenging behavior often involves physical aggression or self-injurious behavior, verbal aggression, shouting or screaming, and refusing to move or refusing to carry out a request may also be present. However, the first implication of the definition of challenging behavior is that it is defined by its impact rather than by its topography.

Challenging behavior can take many forms, and may result from a variety of underlying social psychological or biological processes. But behavior qualifies as challenging not because of its frequency but because of its consequences. Individuals with challenging behavior are often inappropriately placed (Borthwick-Duffy et al., 1987; Emerson & Hatton, 1994) have a poorer quality of life (Mansell, 1994) and have high levels of long-term medication (Sternfert, Dewhurst & Holmes, 2001). Behaviors such as physical aggression, self-injury or property destruction can threaten an individual’s residential placement (Bruininks, Hill & Morreau, 1988) interfere with opportunities for social interaction (Anderson, Lakin, Hill & Chen, 1992), and threaten vocational placement and community participation (Larson, 1991). The effects of challenging behaviors on carer stress and staff turnover are equally well documented (Russell & Harris, 1993). Challenging behavior can have a negative impact on the health and well-being of the person, those who care for the person and those who live or work with the person.
A second implication of the definition of challenging behavior is that the person who presents with the behavior is challenged. Like other forms of impairment, severe challenging behavior may present barriers to the person’s participation in ordinary community living. In this sense, the person has a behavioral disability (Emerson, 1998).

Children with autism have many forms from aggression behaviors, which rated between aggression toward others, self, and things. There are many studies indicated that children with autism have high level from aggression; such as head banging and scratching himself until it bled (Le & Lohr, 2012), and the boys with ASD reacted with more serious forms of aggression when subjected to mild aggressive attacks and did not consider a child attacker's opposite sex an inhibitory factor. The girls with ASD, on the other hand, reacted less aggressively than the girls without ASD. According to the results boys with ASD may not follow the typical development in cognitive regulation of reactive aggression (Kaartinen, Puura, Helminen, Salmelin, Pelkonen, et al. 2014).

Method

Subjects

The study sample consisted of (108) individuals with autism disorder, divided according to: a) gender {males: N (82), aged (6:16), female N (28), aged (6:16)}, b) age stage {children, N (78), aged (6:12), adolescents N (30), aged (13:16), and c) presence of intellectual disability ID (with ID: N (41) aged (6:15); without ID: N (67) aged (6:16) see table 1.

To diagnose study the sample persons, has been dependence on the diagnosis of developmental medicine department in the state of Kuwait in the diagnosis of children whether they have autism or intellectual disability or not. This department is depending on the Childhood Autism Rating Scale (CARS) in the diagnosis of autism cases and in identifying severity of autism, also depending on the Binet test fourth edition in identifying a child's IQ.
Table 1

Demographic Characteristics of participants

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum age</th>
<th>Maximum age</th>
<th>Mean</th>
<th>Std. Deviation</th>
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</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>82</td>
<td>6.00</td>
<td>16.00</td>
<td>9.77</td>
<td>2.70</td>
</tr>
<tr>
<td>Female</td>
<td>26</td>
<td>6.00</td>
<td>16.00</td>
<td>10.34</td>
<td>3.12</td>
</tr>
<tr>
<td><strong>Age stage</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children</td>
<td>78</td>
<td>6.00</td>
<td>11.00</td>
<td>8.46</td>
<td>1.54</td>
</tr>
<tr>
<td>Adolescents</td>
<td>30</td>
<td>12.00</td>
<td>16.00</td>
<td>13.6</td>
<td>1.583</td>
</tr>
<tr>
<td><strong>Intellectual Disability</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>With</td>
<td>41</td>
<td>6.00</td>
<td>15.00</td>
<td>8.68</td>
<td>2.43</td>
</tr>
<tr>
<td>Without</td>
<td>67</td>
<td>6.00</td>
<td>16.00</td>
<td>10.6</td>
<td>2.77</td>
</tr>
<tr>
<td><strong>total sample</strong></td>
<td>108</td>
<td>6.00</td>
<td>16.00</td>
<td>9.91</td>
<td>2.81</td>
</tr>
</tbody>
</table>

Scales:

Aggression Scale

The researcher used a measure of aggressive behavior by (Syadi,2011) for the detection of aggressive behaviors that appear with children with autism disorder and to identify the forms of aggression they have. The scale consists of (30) item divided in three subscales: first is the aggression towards others (14 items), second is the aggression towards self (10 items), and the third is the aggression towards things(6 items).

The aggression scale can be applied through observation and interview with a parent or a teacher of the child, and the answer is on the scale items within five choices are: always: means that the behavior happens all the time (rated by 5 scores), often: means that the behavior most of the time happens (rated by 4 scores), Sometimes: means that the behavior occurs some time (rated by 3 scores), rarely: means that the behavior occurs a few degree (rated by 2 scores), and Never: means that the behavior does not exist (rated by 1 scores).The validity is accounted account by internal consistency, validity coefficients is ranged between 0.87 and 0.62. Cronbach's alpha coefficient was also accounted to identify the reliability coefficient which ranged between 0.93 and 0.80.

Childhood Autism Rating Scale

The CARS was used in this study from the developmental medicine department in the state of Kuwait to diagnosis of children whether they have autism or not. This scale evaluate children in several areas related to the salient characteristics of autism. The
scale includes (15) subscale, are: Relationship with People, Tradition and Simulation, Emotional Response, Use of Body, Use of Objects, Adapt to Change , Visual Response, Responses to Listening, Response & the Use of Test, Smell & Touch, Fear & Anxiety or Nervousness, Verbal Communication, Non-Verbal Communication, Level of Activity, Level & Stability of the Response of Mental, and General Impression. The reliability and validity were reported in Schopler et al. (1980).

**Statistical Analysis**

In the present study was the use of averages and standard deviations, so as to detect the level of subscales and total score of aggression in children with autism. Was also used One-way analysis of variance to detect differences in the subscales total score of aggression among: males and females, children and adolescents, and children with autism with and without intellectual disability. All analyses were performed using the Statistical Program for Social Sciences (SPSS), Version 20.0 for Windows.

**Results**

**Prevalence of Aggression**

For identify the level of aggression for the sample, means and standard deviations are accounted for subscales and total score of aggression scale, *see table 2*

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toward others</td>
<td>108</td>
<td>29.95</td>
<td>12.84</td>
</tr>
<tr>
<td>Toward self</td>
<td>108</td>
<td>16.93</td>
<td>7.83</td>
</tr>
<tr>
<td>Toward things</td>
<td>108</td>
<td>11.38</td>
<td>6.15</td>
</tr>
</tbody>
</table>

The results showed that the aggression toward others was the highest subscale \{(mean (29.95), SD (12.84))\}, then aggression toward self \{(mean (16.93), SD (7.83))\}, and aggression toward things \{(mean (11.38), SD (6.15))\}.

**Differences between Gender:**

Mean and standard deviation for aggression subscale are accounted for males (N= 82) and females (N=26) *see Table 3*.
According to Table (3), the results showed that there is equal to the dimensions of the order of both genders. It was the aggression towards others in the first place (male: mean 29.83, SD 13.12, female: Mean 30.34, SD 12.13), then aggression toward self (male: mean 17.14, SD. 8.53, female: Mean 16.26, SD 5.11), and finally aggression toward things(male: mean 12.14, SD. 6.42, female: Mean 9.00, SD 4.56), While the total score on a scale aggression was (male: mean 59.12, SD25.93, female: Mean 55.61, SD 18.36)

One-way analysis of variance ANOVA is used to account the differences between male and female, See Table (4)

Table 4
Results of ANOVA for differences between males and females at aggression subscale

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toward others</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>5.274</td>
<td>1</td>
<td>5.274</td>
<td>.032</td>
<td>.859</td>
</tr>
<tr>
<td>Within Groups</td>
<td>17637.494</td>
<td>106</td>
<td>166.391</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>17642.769</td>
<td>107</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toward self</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Between Groups</td>
<td>15.187</td>
<td>1</td>
<td>15.187</td>
<td>.246</td>
<td>.621</td>
</tr>
<tr>
<td>Within Groups</td>
<td>6555.359</td>
<td>106</td>
<td>61.843</td>
<td></td>
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</tr>
<tr>
<td>Total</td>
<td>6570.546</td>
<td>107</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toward things</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>195.423</td>
<td>1</td>
<td>195.423</td>
<td>5.36</td>
<td>.023</td>
</tr>
<tr>
<td>Within Groups</td>
<td>3864.244</td>
<td>106</td>
<td>36.455</td>
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<td>Total</td>
<td>4059.667</td>
<td>107</td>
<td></td>
<td>.409</td>
<td>.524</td>
</tr>
<tr>
<td>Total aggression</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>242.732</td>
<td>1</td>
<td>242.732</td>
<td>.409</td>
<td>.524</td>
</tr>
<tr>
<td>Within Groups</td>
<td>62902.934</td>
<td>106</td>
<td>593.424</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>63145.667</td>
<td>107</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
As table (4), the results showed that there is a statistically significant differences between males and females on aggression toward things favor females (F = 5.36, Sig 0.023 < 0.05). While, no statistical significant differences between them on aggression toward others (F = 0.032, Sig 0.859 >0.05) and toward self (F = 0.246, Sig 0.621 > 0.05), or the total score for aggression scale (F = 0.409, Sig 0.524 > 0.05).

Differences between Age groups:

Mean and standard deviation for aggression dimensions are accounted for children and adolescents. See Table (5).

Table 5

<table>
<thead>
<tr>
<th>Age Stages</th>
<th>aggression</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children</td>
<td>Toward others</td>
<td>78</td>
<td>30.34</td>
<td>12.62</td>
</tr>
<tr>
<td></td>
<td>Toward self</td>
<td>78</td>
<td>16.93</td>
<td>7.87</td>
</tr>
<tr>
<td></td>
<td>Toward things</td>
<td>78</td>
<td>11.96</td>
<td>6.33</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>78</td>
<td>59.24</td>
<td>24.24</td>
</tr>
<tr>
<td>Adolescents</td>
<td>Toward others</td>
<td>30</td>
<td>28.93</td>
<td>13.54</td>
</tr>
<tr>
<td></td>
<td>Toward self</td>
<td>30</td>
<td>16.93</td>
<td>7.87</td>
</tr>
<tr>
<td></td>
<td>Toward things</td>
<td>30</td>
<td>9.90</td>
<td>5.49</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>30</td>
<td>55.76</td>
<td>24.65</td>
</tr>
</tbody>
</table>

According to Table (5), the results showed that there is equal to the subscale of the order of both age groups, It was the aggression towards others in the first place (children: mean 30.34, SD 12.62, adolescents: Mean 28.93, SD 13.54), then aggression toward self (children: mean 19.93, SD. 7.87, adolescents: Mean 16.93, SD 7.87), and finally aggression toward things(children: mean 11.96, SD. 6.33, adolescents: Mean 9.90, SD 5.49). While the total score on a scale aggression was (children: mean 59.24, SD 24.24, Adolescents: Mean 55.76, SD 24.65).

One-way analysis of variance ANOVA is used to account the differences between children and adolescents as shown See Table (6)
Table 6
Results of ANOVA for differences between children and adolescents at aggression subscale

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toward others</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>43.248</td>
<td>1</td>
<td>43.248</td>
<td>.260</td>
<td>.611</td>
</tr>
<tr>
<td>Within Groups</td>
<td>17599.521</td>
<td>106</td>
<td>166.033</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>17642.769</td>
<td>107</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>.000</td>
<td>1</td>
<td>.000</td>
<td>.000</td>
<td>.999</td>
</tr>
<tr>
<td>Within Groups</td>
<td>6570.546</td>
<td>106</td>
<td>61.98</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>6570.546</td>
<td>107</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toward self</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>92.082</td>
<td>1</td>
<td>92.082</td>
<td>2.46</td>
<td>.12</td>
</tr>
<tr>
<td>Within Groups</td>
<td>3967.585</td>
<td>106</td>
<td>37.430</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>4059.667</td>
<td>107</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toward things</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>261.928</td>
<td>1</td>
<td>261.928</td>
<td>.442</td>
<td>.508</td>
</tr>
<tr>
<td>Within Groups</td>
<td>62883.738</td>
<td>106</td>
<td>593.243</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>63145.667</td>
<td>107</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As table (6), the results showed that there is no a statistically significant differences between children and adolescents on all aggression subscale, either toward others (F = 0.260, Sig 0.611 > 0.05), nor aggression toward self (F = 0.000, Sig 0.999 > 0.05) nor toward things (F = 0.46, Sig 0.12 > 0.05), or total score for aggression scale (F = 0.442, Sig 0.508 > 0.05).

Differences between children with and without intellectual disability:

Mean and standard deviation for aggression subscale are accounted for children with and without intellectual disability See Table (7).

Table 7
Mean and standard deviation of aggression subscale for with and without intellectual disability

<table>
<thead>
<tr>
<th>Intellectual Disability</th>
<th>aggression</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>With</td>
<td>Toward others</td>
<td>67</td>
<td>30.02</td>
<td>12.85</td>
</tr>
<tr>
<td></td>
<td>Toward self</td>
<td>67</td>
<td>16.86</td>
<td>7.56</td>
</tr>
<tr>
<td></td>
<td>Toward things</td>
<td>67</td>
<td>10.97</td>
<td>5.89</td>
</tr>
<tr>
<td></td>
<td>Total aggression</td>
<td>67</td>
<td>57.86</td>
<td>24.37</td>
</tr>
<tr>
<td>Without</td>
<td>Toward others</td>
<td>41</td>
<td>29.82</td>
<td>12.97</td>
</tr>
<tr>
<td></td>
<td>Toward self</td>
<td>41</td>
<td>17.04</td>
<td>8.35</td>
</tr>
<tr>
<td></td>
<td>Toward things</td>
<td>41</td>
<td>12.07</td>
<td>6.58</td>
</tr>
<tr>
<td></td>
<td>Total aggression</td>
<td>41</td>
<td>58.95</td>
<td>24.44</td>
</tr>
</tbody>
</table>
According to Table (7), the results showed that there is equal to the subscale of the order of both age groups, It was the aggression towards others in the first place (with ID: mean 30.02, SD 12.85, without ID: Mean, 29.82 ,SD 12.97), then aggression toward self (with ID: mean 16.86, SD. 7.56, without ID: Mean 17.04, SD 8.35), and finally aggression toward things (with ID: mean10.97, SD 5.89, without ID: Mean12.07, SD 6.58). While the total score on a scale aggression was (with ID: mean 57.86, SD 24.37, without ID: Mean 58.95, SD 24.44)

One-way analysis of variance ANOVA is used to account the differences between children and adolescents as shown in table (8).

**Table 8**

Results of ANOVA for differences between children with and without intellectual disability at aggression subscale

<table>
<thead>
<tr>
<th>Aggression</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toward others</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>1.023</td>
<td>1</td>
<td>1.023</td>
<td>.006</td>
<td>.938</td>
</tr>
<tr>
<td>Within Groups</td>
<td>17641.745</td>
<td>106</td>
<td>166.432</td>
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</tr>
<tr>
<td>Total</td>
<td>17642.769</td>
<td>107</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toward self</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>.853</td>
<td>1</td>
<td>.853</td>
<td>.014</td>
<td>.907</td>
</tr>
<tr>
<td>Within Groups</td>
<td>6569.693</td>
<td>106</td>
<td>61.978</td>
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</tr>
<tr>
<td>Total</td>
<td>6570.546</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Toward things</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>30.946</td>
<td>1</td>
<td>30.946</td>
<td>.814</td>
<td>.369</td>
</tr>
<tr>
<td>Within Groups</td>
<td>4028.721</td>
<td>106</td>
<td>38.007</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>4059.667</td>
<td>107</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total aggression</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>29.973</td>
<td>1</td>
<td>29.973</td>
<td>.050</td>
<td>.823</td>
</tr>
<tr>
<td>Within Groups</td>
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<td>106</td>
<td>595.431</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>63145.667</td>
<td>107</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As table (8), the results showed that there is no a statistically significant differences between children with and without intellectual disability on all aggression subscale, either toward others (F = 0.006, Sig 0.938> 0.05), nor aggression toward self (F = 0.014, Sig 0.907>0.05) nor toward things (F = 0.814, Sig 0.369> 0.05), or total score for aggression scale (F = 0.050, Sig 0.823> 0.05).

**Discussion**

The results of this study showed that the children with ASDs often engage in aggressive behavior because they need or want something that they cannot get without another person’s help or because they want to avoid doing something that someone else wants them to do. Thus, a large part of the behavior that adults find so difficult is, at its base, an effort to communicate. It is rare for children, even children with Severe autism, to behave badly just to test the patience of others, because Such
behavior is intrinsically rewarding, or because children simply want to make life difficult for the adults around them. Instead, children with ASDs often use strategies that they have found, through experience, to be effective in solving immediate problems (Durand & Merges, 2001).

Identifying the Situations in which Challenging Behavior Occurs Parents who are asked about situations that are difficult for their children usually list the following:

• Disruptions in daily routines
• Interruption of enjoyable activities
• Crowds of people, especially in small spaces
• The presence or approach of strangers
• Too many instructions at once
• Insistent demands from an adult
• Times when there is nothing to do (e.g., while riding in the car, while sitting in a waiting room)
• Particular sounds, bright lights, or other unpleasant sensory stimulation (O'Brien & Daggett, 2006)

Many parents reported their distress at having to watch their child deliberately injure him- or herself. Even when they suspected that this was a manipulative form of attention seeking they still found themselves unable to quell their anxiety. Hand-biting, eye-poking, head-banging and ears lapping are among the most common of the self-injurious behaviors reported, and they are normally shown by children with the most severe form of the disorder. Many explanations exist for this type of behavior, the most common one being that the self-injuring children are simply attention seeking.

They have learned that this behavior, painful as it may be, brings large rewards in terms of adult attention. Another explanation is that the children have learned that causing themselves pain leads to a sense of well-being. This situation may arise because the behavior produces a response at the biochemical level whereby naturally occurring opiates rather like morphine are released into the bloodstream, and this leads to an increased sense of well-being. A third hypothesis is that self-injuring children are showing that they are bored and need stimulation. It is certainly the clinical experience of the first author that distracting a self-injuring child with an interesting activity can reduce the frequency and severity of self-injury. It is also noticeable that the most severe and frequent self-injurious behavior is found in those children who have little or no means of communication. This implies that it is a form of communication, and that parents and psychologists must be careful to try to interpret the message that the child is attempting to communicate. Once this has been done, it is often possible to alter the antecedents that give rise to the self-injurious behavior, such that the child no longer needs to communicate in this way. Typically the antecedents concern some break in or disruption of a ritual that the child with autism enjoys or depends upon for his or her security.
Children with autism have self-biting also. This is the form of self-injurious behavior that parents report causes them greatest distress. Analysis of most of the situations in which they report this behavior indicates that the child or young person feels under some pressure because he or she is no longer in a routine, or because there has been a change in the child’s handling characteristics.

Sometimes the only solution to self-biting is to use a protective device that stops the young person from injuring him- or herself. This also has the added benefit of preventing parents from being anxious that there will be serious injury.

Temper Tantrums Aggression

Most of the parents felt that the aggression directed towards others by their children with autism during temper tantrums was a product of their frustrated attempts at communication. However, prolonged bouts of screaming, punctuated by kicking, hitting, biting, spitting and pushing other people, create severe family pressures. These behaviors are common among children with autism, and frequently follow a pattern from some kind of frustration, perhaps in communication or denial of a want, progressing through a series of escalating difficult behaviors to full-blown aggression.

There is many studies agree with results of this study, e.g.: (Mallory, 2014) which indicated that that children with autism spectrum disorders (ASD) and with other disabilities (OD) experienced significantly greater rates of peer aggression than peers in the without disabilities group (WD). Additionally, the ASD and OD groups of children were more likely to experience peer victimization than the WD group. Peer aggression was correlated with autistic traits, anxious/depressed, withdrawn/depressed, thought problems, and attention problems (Mallory, 2014).
References:


**Contact email:** saidsmk@agu.edu.bh
Conformity and Obedience of Bantengan and Jaran Kencak in East Java

Fahyuni Baharuddin, 45 University of Surabaya, Indonesia
Prakrisno Satrio, 45 University of Surabaya, Indonesia

Abstract
As a traditional culture and art, Bantengan in Trawas and Jaran Kencak in Lumajang, East Java is one of the diversity of Indonesian famous and exotic culture. Although using animals as the name, but they are very different in essence. Bantengan or Bull Dance is a performance art that combines elements of dance, physical exercise, music and mantra that very thick with magical feel, while the Jaran Kencak or Dance Horse is a performance art that uses specially trained horses to dance and makeup with clothes and accessories that complete and sparkling. Both types of that traditional art are held communally, involving many people as dancer, musician and leader. Aiming to compare the effect of group on members of Bantengan and Jaran Kecak groups, particularly on conformity and obedience, this study involved groups of Jaran Kencak consisting of approximately 12 people and Bantengan consisting of approximately 25 people with their roles. This study shown that each member of the group Bantengan and Jaran Kencak simultaneously experiencing conformity and obedience, where conformity occur because they conform to group values and obedience because they must be obedient to the leader. Although some research on conformity and obedience has been done, but the role of conformity and obedience in the traditional cultural art of Indonesia are still limited in number and interesting to study. As a pilot study, this study only covers two districts in East Java and will be followed by a broader research scope to get better results.

Keywords: Conformity, Obedience, Indonesia, Bantengan, Jaran Kencak
Introduction

Indonesian culture is the entire national culture, local culture, and foreign culture that existed in Indonesia before Indonesia became independent in 1945. The national culture in Ki Hajar Dewantara's view is "the tops of local culture". The quotation of this statement refers to the unity of the unity increasingly strengthened, so that pedigality is more perceived than diversity. Its form is a unitary state, national economy, national law, and national language. The definition given by Koentjaraningrat can be seen from his statement: "the peculiar and qualities of any tribe of origin, of origin can identify and generate pride, that is national culture". This statement refers to the peaks of regional culture and tribal culture that can generate a sense of pride for the Indonesians if presented to represent a common identity. Nunus Supriadi, "Regional Culture and National Culture".

Local culture is reflected in various aspects of community life throughout the region in Indonesia. Each region has different cultural characteristics. Traditional ceremony is a form of tradition that is passed down through generations which is carried out regularly and orderly according to the customs of society in the form of a series of activities of petition as an expression of gratitude. In addition, the traditional ceremony is a manifestation of a belief system of society that has universal values, sacred, sacred, religious values, carried out from generation to generation as well as into the richness of national culture. The elements in the traditional ceremonies include: ceremonial venue, time of execution, objects / equipment and ceremonial actors that include leaders and participants of the ceremony. Types of traditional ceremonies in Indonesia include: Birth ceremony, marriage, death, burial, worship, ethnic and other inauguration.

Indonesian dance reflects the richness and diversity of ethnic and Indonesian cultures. There are more than 700 ethnic groups in Indonesia: can be seen from the cultural roots of the Austronesian and Melanesian peoples, influenced by various cultures from neighboring countries in Asia and even western influences absorbed through colonization. Each tribe in Indonesia has its own unique dances. Indonesia has more than 3000 indigenous Indonesian dances. The ancient traditions of dance and drama are preserved in various dance studios and schools that are protected by Traditional Leaders or art academies.

This diversity of traditional dance products has its own unique characteristics and uniqueness that spread from Sabang to Merauke. One of the famous art product traditions in East Java is Banteng art tradition in Jolotundo Trawas and Jaran Kencak tradition art in Lumajang.

Traditional Art of Bantengan

The traditional arts of Bantengan are in the majority of rural communities or suburban in the mountainous area of East Java, Bromo-Tengger-Semeru, Arjuno-Welirang, Anjasmoro, Kawi and Raung-Argopuro.

The art of this tradition has actually existed since the Dutch colonial government, where this art is a merger between the art of silat and the art of gamelan music combined with the symbolic story of colonial era heroism struggled with trance
conditions or trance. Symbolically is a picture of the hegemony of lions and the resistance of the bull, then the art of this tradition is better known as the art of Bantengan. Demonstration of Pencak Silat moment in a performance of art of Bantengan can be seen in movement of dance (solah) in Bantengan art which many come from pattern of step (jangkah) Pencak Silat. The adoption of Pencak Silat stepping pattern into solah movement was backed by the use of Bantengan art as a tool of camouflage of Pencak Silat practice during Dutch colonial rule (Desprianto, 2013). Pencak Silat training activities during the Dutch colonial government is so closely supervised. Pencak Silat is considered to bring a sense of confidence and courage to oppose the colonial government (Maryono, 2000). This is why the youth took the initiative to use the art of Bantengan as a form of disguise of Pencak Silat training activities so as not to be suspected by the Dutch colonial government.

At the time of independence Banteng art is no longer as a function as originally, where the art of Bantengan no longer serves the camouflage tool Pencak Silat training, but has become an independent art (Desprianto, 2013). Nevertheless, the existence of art Bantengan as an independent art can not be separated from Pencak Silat just like that. This can be seen on the attractions of Pencak Silat moment display which is still given place in a series of art performances of Bantengan. The martial arts movements show the show is coupled with a fight using various types of weapons and a magic match.

Changes in the times and circumstances and the entry of several new ideas on artistic membership of Bantengan, making this art is growing rapidly. Like audience, the Sinden Gumingan Duri Salak, Topengan and Macanan become part of the art of Bantengan. In the theatrical each art group Bantengan has differences and distinctive characteristics of each, but usually each show featuring attractions pencak silat as the basic art of the formation of art Bantengan. The highlight in the art performance of Bantengan is when the bull figure appears against the tiger (Desprianto, 2013).

This action became the highlight of the event because the level of difficulty and tension is different from previous actions and one of the characteristics of this action is the number of players who are in trance or trance conditions. The elements of attraction in this attraction where the process of trance or trance that occurs in each player is when animating every animal character, be it a bull or a tiger. In a trance or trance state the players are guided by an expert handler in this field. This trance process is no different from similar arts from other areas such as jaranan for example. Aesthetically both have different goals apart from the pro or not trance element into the realm of art.

In the beginning, the art of Bantengan is an entertainment element for every Pencak Silat player after every routine practice. Each group has at least two bantengan. Bantengan as well as one pair of males and females. Although developed from the circle of Pencak Silat, at this time Bantengan art has stood as part of the tradition so that not all Pencak Silat colleges in Indonesia have a group Bantengan and vice versa.

The development of arts Bantengan matoritas are in the villages of East Java region, one of them in the village of Jolotundo, Trawas. Bantengan art game played by two people who act as the front leg as well as the head holder of Bantengan and the controller of dance and rear legs that also act as the tail of Bantengan. Bull's costume
is usually made of black fabric and a mask of bull's head made of wood and the original horn of a bull. Since bulls, especially Javanese bulls, have become increasingly difficult to find, horns and heads are now mostly used as wood and horns from cows as well as dead buffalo.

This bantengan is always accompanied by a group of people who play typical music Bantengan with musical instruments such as gong, drum and others. This art is played by two men, one on the front as his head, and one at the back as his tail. Usually, the front man will be possessed, and the person behind him will follow every move. Not infrequently people in the back are also possessed but very rare people who are in the back trance while the front is not. Bantengan assisted to possessed by people (men) who wore red clothes that are usually called abangan and black shirts are usually called irengan.

Bantengan also always accompanied by macanan (tiger like costume). These macanan costumes are made of dyed fabrics (usually orange striped yellow), worn by a man. This flower usually helps to trances possessions and hold them when their possessions are too fierce. But not infrequently also experience trances.

In every show (called "gebyak"). Bantengan supported by several players, namely:

- Two bullion head controllers (using a strap)
- Players Jidor, gamelan, pengerawit and sinden at least one person at each position
- Shaman Leaders who are have skill in terms of calling the ancestor Bull / Dhayangan and return it to the place of origin,
- Pamong and warrior leaders who take control of the group by bringing the control of whip
- Minimum 2 people who become macanan as bullies role.

(Desprianto, 2013)

Jaran Kencak

Jaran Kencak is a typical traditional art of Lumajang. This art is also closely related to the history of Lumajang in the time of the Ariya king Wiraraja who is very famous for his horse troops. The interesting thing about Jaran Kencak art is horses who hear the gending or gamelan sound, then the horse dances to the rhythm of the gamelan (Kencak). It is said that this art was born in the time of Arya Wiraraja who ruled the kingdom of Lumajang (now in the village of Biting, Sukodono, Lumajang) whose territory includes the Horseshoe and Madura.

The performing arts grew in the Lumajang area in 1949, one of the leaders of Kalipepe village, Yosowilangun sub-district, Lumajang Regency, developed this art into a cultural art of Pendalungan in the form of a horse procession decorated with cloth (dikemuli) and accompanied by Kenong Telok music. Kenong Telok music is a blend of ethnic Javanese and ethnic Madurese. The arts surrounded the village of Kalipepe to entertain the people who at that time felt depressed and frightened because of the condition of the Lumajang area. There is also a mention that this art as a form of homage to the favorite horse Ranggalawe from Arya Wiraraja named Nila Ambhara is famous as the most powerful and smart horses of the era.
At the end of 1960 Jaran Kencak art experienced a very rapid development, both on the horse decoration and the addition of personnel in the following order:

1. Dancers in the form of Jaran Bodak that resembles Jaran Kencak, behind the bride who sits his horse (the bride here is the child who dikhitankan)
2. Kopyah (Cap) Dancers
3. Gamelan music accompaniment with the equipment

Since 1963 until now Jaran Kencak pegelaran start to appear and often attracted to perform at the occasion of the celebration. Lumajang should be proud because Jaran Kencak art is still there. Even in some villages such as Klakah, Ranuyoso, Kalipepe, Kedungrejo, Yosowilangun and a number of other villages, Jaran Kencak is an art show that uses horses as entertainment and is still in demand by the community.

To be able to perform attractive horse horses this specially trained to perform dance moves, turning spin while lifting both legs, just waiting for orders alone jaran-jaran is already clenched-kencak. Jaran Kencak Performances usually also serves as a tradition of nadzar release for someone who is in accordance with the manner and behavior of hereditary.

Musical instruments are classified into two: a set of Javanese gamelan used in stage or arena and a set of gamelan Kenong Telo (Madura) used during opening and parade. Rhythm or songs played are Madura gending-like Sarka'an, Giro Seronen and Loro-loro

**Conformity to group members**

A. Definition of Conformity

Baron & Byrne (1994) argue that conformity is an adjustment to social groups because of the demands of the group to adjust even if the claim is not open. According to Myers (2002), conformity is a behavioral change as well as belief or belief caused by a noticeable group pressure or only as an imagination of the individual

B. Aspects of Conformity

Baron and Byrne (1994) suggest that a person conforms to his group if the individual's behavior is based on the expectations of the group or society. The basics that cause it are:

1. The social influence of normative is the social influence based on the desire of the individual to be liked or accepted by others and to avoid rejection.
2. Informational social influences are social influences based on the individual's desire to be true.

According to Sears, Freedman, and Peplau (2009) that in essence, people adjust for two reasons:
1. The behavior of others provides useful information. Often others know something we do not know. By doing what others do we will benefit from their knowledge.
2. The desire to be socially acceptable and to avoid reproach. Individuals will behave in accordance with the behavior that other people usually do. This is to avoid feeling that he is different from others so that he will be protected from reproach and acceptable in the social environment.

C. Types of Conformity

Worchel and Cooper (in Brehm & Kassim, 1996) categorize conformity into two forms:

1. Acceptance, is a form of conformity that individuals do by equating attitudes, personal beliefs, and behavior in public with the norm or pressure group.
2. Compliance, is a form of conformity that individuals make by changing their behavior in public to suit group pressure, but secretly does not change their personal opinion.

In line with Worchel and Cooper, Allen, Kelman and Mascovici (in Brehm & Kassim, 1996) also suggested two types of conformity:

1. Private conformity is the same as acceptance of conformity behavior that is done not only by changing the behavior of the outside, but also change the mindset. Conformity is the result of informational influence.
2. Public conformity is also called the compliance, that is, conformity behavior is only done by changing the behavior outside without any change of mindset. This type of conformity behavior is the result of normative social influence.

D. Factors affecting conformity

According to Baron and Bryne (1994) conformity is influenced by:

1. Cohesiveness. Kohevisitas is defined as the degree of individual interest to the group. The greater the cohesiveness, the higher the individual wants to conform to the group.
2. Group Size. The increasing number of group members will affect the high level of conformity within the group.
3. Types of social norms that apply to certain situations. The prevailing social norm may be a descriptive norm or an injunctive norm. Descriptive norms are norms that only indicate what most people do in certain situations. The injunctive norm is the norm that determines what behavior is accepted or not accepted in a particular situation.

Myers (2002) states that the factors that affect conformity consists of six factors:

1. Group Size
   A person will tend to identify when three or more groups mimic behavior or trust.
2. Uniformity of Sound
   The effect of uniformity of sound on conformity when one gives the correct answer and injures uniformity of sound in a group (Asch, 1955).
3. Cohesiveness
The more cohesive a group, the more the group has the power to the members of its group.

4. Status
The higher the status of the behavioral or trust pilot, the greater the tendency to bring conformity.

5. General Response
The highest conformity occurs when a given response is raised publicly (in group existence).

6. Previous Commitment
An earlier commitment to a behavior of a particular belief will increase the tendency that a person will remain on the commitment and not be self-assured.

Conformity to members of the arts of Bantengan and Jaran Kencak

Both members of art Bantengan and members of art Jaran Kencak is a communal art that involves many people in every show. As well as the life of the bull, which is the life of the bull (colony), this bantengan culture shapes the behavior of the people who do it to always live in communion, mutual cooperation and high sense of unity and unity

Obedience to group members

According to Colman (2009), obedience is a form of behavior of a person who obeys orders directly from the leadership. In addition, according to Constable (Constable et al., 2002), obedience is said to occur if a person follows his superior orders without questioning the order. Baron & Byrne, 1994; Brehm & Kassin, 1996 suggests that Obedience is a form of compliance because of a request to do something declared in command.

The Milgram experiment began in 1961, 3 months after the start of the trial of the Nazi war criminal, Adolf Eichmann in Jerusalem. Milgram developed an experiment to answer a question: "whether the holocaust (the holocaust of about six million Jews in Europe during World War II initiated by Hitler) undertaken by Eichmann himself has the same intent as the objective of the Holocaust itself, Which in other words question whether there is equal moral value to the elements involved. The study itself suggests that the elements are only following orders, despite the fact that the command is completely outside their moral values. This research has been done many times with more or less constant results, but with different percentages in every part of the world.

In a study conducted by Milgram using varying electric shocks when subjects were wrongly answered, found that 65% of subjects remained obedient to their job to a voltage level of 450 volts and no subject stopped stopping at 300 volts. Milgram proves that the potential for compliance is a necessary requirement for the societal life that may have formed in our species through evolution.
Effects of the group

Milgram also shows the effect of group members on the subject's compliance level. The subjects recorded information and performed tasks when the experimenter's hands were asked to reverse the surprise switch, as much as 92.5% of subjects kept performing their duties without intervention. When the experimenter's arms refused to regulate the electric shock and asked for another subject to replace it, 10% of the subjects were obedient. In 2 experiments, when 1 subjects resumed giving an electric shock, while the other wanted to stop, all subjects chose to obey the holder of better authority. (Johnson & Johnson, 2005).

Obedience to members of the arts of Bantengan and Jaran Kencak

In the art of Bantengan which became the highlight of the event is when the number of players who are in trance or trance conditions. The elements of attraction in this attraction is the process of trance or trance that occurs in each player to be able to animate every animal character that he played either be Bull, Tiger or ape. In a trance or trance state the players are guided by an expert handler in this field.

The player in this Bantengan art is controlled by the leader (Pawang). Their movement is attractive and very dynamic let alone accompanied by gamelan beats that memorable magical. Not infrequently the arts of this Bantengan be wild and memorable if the Pawang is not proficient. Some of the successors who act as Pawang are generations of generations, which is not unlike his grandfather or his father who acts as a swordsman of Pencak Silat and the leader at the same time.

In the art of Jaran Kencak, in the performances of the dancers started the movement with the whiplash dance by teenage girls. Furthermore, one horse becomes icon, because it is very according to the owner, move and dance with kopyah dance, and two horses filled with ornaments / symbols of ancient culture. Before performing, this dance was paraded around the village. Arriving from the parade, then held the show completely. Gamelan in percussion with a certain rhythm. His companion, usually called "Janis", will also join in dancing and bringing chants, a kind of sarcastic quip and sung in reply. In the gamelan rhythm that the horse with his antics nodded, shook his head and jerked his feet in the rhythm of the sounds. The horse is in the hands of a reliable coach.

Research methods

Based on the background and literature review, this study assumes that there is a conformity relationship with obedience both to members of the traditional art group Bantengan and Jaran Kencak. The research location for the Bantengan group is located in Jolotundo Trawas. Subjects in this research is a member of the art group Bantengan tradition named Paguyuban Pencak Silat Mulya Sakti Tiger Twins in the village Biting Selaliman Trawas. While the location and subject of research Jaran Kencak group is located in Lumajang city.

The range of possible written sources to be utilized in this research will be used to the maximum extent possible to drive the success of this research. Among them are literature books, internet, magazines or scientific journals, archives, personal
documents, and official documents of the institutions associated with this research. The researcher did some of these things:

1. Observations undertaken before and during this research are conducted which cover the general picture, the atmosphere of social life, physical condition, economic conditions and social conditions that occur.
2. Documentation Study that is, Information data needed in this research also we get from study of documentation. Prior to field research, researchers have conducted a study of literature, magazines, journals, seminar results, articles both available in the media and the internet in the library.
3. In-depth interviews, conducted directly with informants separately in their respective environments. Interviews will be conducted with informants who are considered competent and representative.

Results and Discussion

Conformity and Obedience relationships to members of the Banteng art group and members of the Jaran Kencak group

Art Bantengan and art Jaran Kencak is a communal art means to involve many people in every show. As well as the life of the bull, which is the life of the bull (colony), this bantengan culture shapes the behavior of the people who are involved in it to always live in communion, mutual cooperation and high sense of unity and unity, as well as members of art Jaran Kencak which involves many Dancers, gamelan musicians and horse trainers.

The members of Banteng art and art members Jaran Kencak in doing their activities are very conform with their group. There are two studies that show that group members will perform conformity for two different reasons, namely informational and normative (Crutchfield, 1955, Deutch & Gerrard, 1955, in Brehm and Kassin, 1996). Through informational influences, members of the arts group Bantengan and Jaran Kencak conduct conformity because they want the decisions taken by them to assume that others agree on something that is right. Each member of the group involved in this artistic activity realizes that their group has the fairness to cultivate these activities simultaneously. The normative influence directs each group member to conformity because of the anxiety and negative consequences of something distorted. Because they want to be accepted, group members will avoid behaviors that make each member look conspicuous. Of course every member of the group thinks that he is unique. But rejection and conflict can lead to stressful situations. A number of studies have shown that group members who deviate from group norms are often disliked, rejected, harassed and ridiculed (especially Scahchter, 1951, Levine, 1989, in Brehm and Kassin, 1996), especially when the group requires the achievement of a consensus (Kruglanski & Webster, 1991). The statement, "go together," may seem unpleasant, but it is a real reality of social life.

The realization that each member of the group often succumbs to group pressure is only a step in understanding the process of social influence. The next stage is to identify situations and personal factors that make each group member easier or difficult to conform. Members of this arts group tend to conformity when social pressure is so intentional while they do not feel safe in behavior (Campbell & Fairey,
The influence of the majority on conformity is determined by group size, awareness of group norms, presence of friends, age and gender and culture.

Obedience is a form of social influence when one follows the request of an authoritative person / institution. Learning from childhood experiences that respecting legitimate leaders is important, people will think twice before opposing parents, teachers, coaches and government officials. In fact, a child understands (at a younger age), that certain authority figures have powers that particular domain but not domains on other domains (Laupa & Turiel, 1993, in Brehm and Kassin, 1996). The issue of symbols of title authority, racing, emblems, and so on can influence ordinary people to be obedient servants (Bickman, 1974, Bushman, 1984, in Brehm and Kassin, 1996).

At the attraction of art Bantengan, members of this art group wear some equipment in the staging. CEMETI (whip) is one of the attributes of the handler or warrior leader used to invite the souls of the bull, either from the north, south, west, to the east as a form permit the holding of art performances Bantengan. In addition, the whip also serves as a controlling movement or attractions that experienced transce Bantengan. In each performance, the accompaniment of gamelan music in the form of jidor and drum is important in every performance. The first wash of jidor started the art game of Bantengan, as a sign of the start of gebyak Bantengan. Jidor and drums must be beaten until the end of the performance and the gebyak may not even stop because it will make members of the art group Bantengan in transe become angry. The rhythm of the jidor and drum beat must be constantly beaten with the same fixed tempo. How to beat like this gives a magical feel and thrill every member of the art group Bantengan. The handler who acts as the leader and leader of the leader with the whip / whip attribute, and the magical music accompaniment of the gamelan that can not stop, is the embodiment of obedience or obedience from members of the art group Bantengan.

In Jaran Kencak art, ancient Javanese gending played from the gamelan. Two black horses, complete with strikingly colored costumes enter the stage area. Following the coach's command, the sandel horse demonstrated the action, the two horses nodding as they fluttered their legs following the gamelan beat. In addition to dancing, the two horses also show the action, sitting and standing on two legs. In addition to dancing, Jaran Kencak art attraction is a striking colored horse costume. Like kemul (quilt / saddle) are golden yellow, crown or colorful flowered flower, chest necklace, and complete with a stretch along the horse's back.

The result of the interview with Mr Rugito, one of Jaran Kencak art owner, said that Jaran Kencak means that the agile horses danced to the song. "The so-called kencak is how to play the legs alternately. So his feet should be right following the drum. When the big gong sounds the sign of the song is finished then the horse will stop by itself. "Clearly this new 5 year old Rugito pursue Art Jaran Kencak. Rugito told, to get the horses are good at dancing do require special training. One horse takes about 1 month to be able to dance from the music played from the tape. The horse used for this art is Sandel type commonly obtained from Sumbawa. This type of Sandel, said Rugito, was chosen because it has a higher physical form than ordinary horses.
Bertram Raven calcifies the main principles of power that give rise to submission (Taylor, et al, 2009), the classification among others is skill, which refers to others who are experts with better knowledge and ability, this is the basis Obedience member of Jaran Kencak group against group leader

Remarks

Every effort is made to preserve this art. After the era of reform, their existence began to appear along with the freedom of expression, it is proved by the more frequent art of Bantengan or Jara Kencak art is presented in various events such as wedding convoy, ruwat village, carnival area, inauguration of village head, Other art festivals. Realizing the importance of art as a cultural treasury of the nation that must be preserved because it will become a heritage for children and grandchildren because they also have the right to know that their ancestors are a nation that is creative, cultured and concerned about its cultural preservation.


Reference


Interviews:

Bapak Gatot, Traditional Leader of desa Biting Selolima, Kecamatan Trawas, kabupaten Mojokerto

Bapak Paino, Chairman of Bantengan Mulya Sakti Macan Kembar Traditional Art Group, desa Biting, Seloliman, Kecamatan Trawas, kabupaten Mojokerto

Contact email: fahyuni.b@gmail.com
prakrisno@gmail.com
The Effect of Type of Self Perspective and God Prime on Prosociality

Gumilang Reza Andika, Universitas Indonesia, Indonesia
Rizka Halida, Universitas Indonesia, Indonesia

Abstract
Frimer, Schaefer, and Oakes (2014) suggest that there are at least two distinct self-perspectives in every person: actor (tends to be prosocial) and agent (tends to be selfish), which mainly differentiated by the feeling of being watched. What if that feeling came from ideas about God? Priming God concept is known as activating factor to prosociality. We predicted that the activation of God concept can diminish prosociality gap between self-perspectives by increasing their prosociality. It means that there is an interaction effect between self-perspective and God prime.

A 2 (self-perspective: actor, agent) X 2 (prime: God, neutral) X 2 (recipient: self, others) mixed-design computer-based experiment (N = 124) was conducted to test them. The manipulations including the task to describe or rate the importance of two kinds of goals: selfish and prosocial (Frimer, Schaefer, & Oakes, 2014), and semantic prime (Shariff & Norenzayan, 2007). Prosociality is measured by comparing the importance of selfish and prosocial goals (Frimer, Schaefer, & Oakes, 2014). We found that God prime has divergent effects on prosociality: increases actor’s prosociality, but decreases agent’s prosociality. It suggests that effect of thought about God depends on how our self-perspective is. This finding is an important consideration in designing behavior intervention methods to promote prosocial behavior.

Keywords: actor, agent, god prime, prosociality, self-perspective
Introduction

Prosocial behavior, which is defined as the act of helping or giving benefit for other people or society in general (Twenge, Ciarocco, Baumeister, & Bartels, 2007), is one of the central features of human life and a major focus of research across the natural and social sciences (Zaki & Mitchell, 2013). Every single of us must have helped other people or have seen others doing that in some part of our life, making it an inseparable part of human interactions. The reasons to help others can emerge from the feelings of empathy and genuine desires to relieve others’ difficulty; or from the idea that helping other people can benefit the helper because appearing to be prosocial builds a positive reputation, which eventually confers social and material gains (Frimer, Schaefer, & Oakes, 2014).

Most theoretical models of prosociality share a common assumption: Humans are instinctively selfish, and prosocial behavior requires exerting reflective control over these basic instincts (Zaki & Mitchell, 2013). Most of the determinants of prosocial behavior that have been identified as reliable factors of the situational type. Although there are a growing numbers of evidence which support the importance of personality and attitude variables (Bierhoff, 2005). From an evolutionary perspective, this duality of behavioral tendency (prosocial and selfish) is useful to solve an adaptive challenge. If individuals are faced with the social problem caused by limited resources, they have to choices: behaving selfishly to garner the maximum resources for oneself (Frimer, Schaefer & Oakes, 2014), or behaving morally so that the inclusion within groups are secured, making generosity worth its costs (Millet & DeWitte, 2007). Such process has shaped increasingly cooperative and prosocial human’s behavior, by creating a condition where our most successful ancestors may have been among the most cooperative within their groups rather than the most competitive or selfish (Simpson & Beckes, 2010).

Frimer, Schaefer, and Oakes (2014) argue that the condition which determines how individuals behave based on that behavioral tendency is whether individuals feel observed. If individuals feel observed, they tend to be prosocial. If they do not, the tendency to act selfishly would be stronger. The theoretical framework we use to explain further about the phenomenon is McAdam’s multilayered-self (actor-agent-author) framework (2013). It asserts that individual’s psychological self consists of three developmental layers of self: actor, agent, and author, which characterized by different elements and attributes. Each layer of self represents unique characteristic on how individual perceive oneself and one’s environment. Based on that framework, it’s suggested that the duality of prosocial-selfish tendency is affected by the difference between the layers of self: self as actor and self as agent. Actor, which characterized by the feeling of being observed (viewing oneself from an outsider’s perspective), tends to be prosocial. While agent, with the perspective of a first-person executor, tends to be selfish.

There are evidently various factors which affect individual’s prosociality besides the self-perspective (e.g., Jonas, Schimel, Greenberg & Pyszczynski, 2002; Anderson & Bushman, 2001; Shariff & Norenzayan, 2007). One of the factors that have received enduring research attention in psychology is religious factors (Shariff, Willard, Andersen, & Norenzayan, 2015). Historically, religion and religious faith are believed
to be the source of human morality. Nearly all major world religions around the world explicitly encourage the faithful to be unconditionally prosocial and treat others as we would like to be treated (Preston, Ritter, & Ivan Hernandez, 2010; Norenzayan, & Shariff, 2008).

Religions generally present the idea and concept of God which are believed by their adherents. While specific depictions of God differ across religions, common to most depictions is that God is an omnipotent, controlling force; and an omniscient, all-knowing being (Laurin, Kay, & Fitzsimons, 2012). McCullough and Willoughby (2009) state that if individuals feel that they are being observed by such supernatural entity, they will experience the increase in self-monitoring and self-regulation which related to responsible actions. The same pattern is also found in Shariff and Norenzayan’s studies (2007), which show that God concept, which activated through God prime—implicitly making individuals feel being observed by an omniscient entity, can increase prosocial behavior.

It can be concluded that prosocial behavior has a tendency to occur in certain situations, especially related to the fact that human behavior often changes from time to time and is determined significantly by situational factors. Moreover, there are various prosocial responses, which can occur at certain condition, but not in others (Eisenberg & Mussen, 1989). Therefore, it’s important to investigate further about situational factors which are capable affecting the emergence of prosocial behavior so that we can optimize it to benefit the community. Religious factors are considered in this research because the religious ethics and belief play a significant role as the reference for its adherents to behave and act (McCullough & Willoughby, 2009), especially within Indonesian society in general, which puts religion and belief in God as an important thing in their life (Indonesia, Religion, and Social Profile, n.d.)

Figure 1: The hypothetical model which visualize the relations between variables

In this research, the author refers to McAdams’ multilayer-self framework (2013) as the main theoretical framework to investigate the effect of dynamics within self to individual’s behavior. The framework can give us a more comprehensive view regarding the interaction within self and stimulus or factors that can affect one’s behavior. As for the linkage between self and prosociality—the spectrum of prosocial
and selfish, the author includes Frimer, Schaefer, and Oakes’ experiments (2014) as the main methodological references in developing the experiment in this research.

We predicted that:

1. Actor with God prime is more prosocial than actor with neutral prime.
2. Agent with God prime is more prosocial than agent with neutral prime.
3. In God prime condition, actor be more prosocial than agent.
4. In neutral prime condition, actor is more prosocial than agent.
5. There is an interaction effect of type-of-self and God prime on prosociality.

Self

Considerations of what individual feels and think about are inseparable from attempts to explain the complexity of individual behavior, based on the assumption that both cognitive and mental concepts are important aspects of the individual's experience and behavioral antecedents (Leary & Tangney, 2011). William James, the first person raised the topic of self in the field of psychology, formulated the concept of self by dividing it into I (self-as-knower) and me (self-as-known)—the two fundamental aspects of self that continue to interact and generate awareness of self (James, 1890). The concepts that explain the self as two interrelated aspects (as subjects and objects) are widely adopted by researchers and theorists after James (Leary & Tangney, 2011), including Dan P. McAdams in his theory of psychological self as actor, agent, and author (2013), which author uses as a reference in this study.

Actor, Agent, and Author

In line with James' opinion, McAdams (2013) states that psychologically self can be described as a reflexive regulatory process between the subjective I and the me that is constructed by experience, whose mechanisms continue to grow and develop. McAdams (2013) also adds that the self is composed of at least three different types of psychological content or material, each of which regulates what can be seen and understood by "I" when "I" interacts with "me" reflectively. Allows individuals to understand himself from three psychological points of view, namely as actors, agents, and authors. These three self-perspectives are equivalent to the developmental layers of psychological selfhood, each of which is formed at different stages of development and follows the process of development as the individual lives (McAdams, 2013).
The actor's perspective comes along with the earliest stages of self formation. Actor performs a function of self-regulation and striving to meet the rules and social demands which are learned. By the middle or late childhood, the agent perspective is formed. The agent perspective allows individuals to act according to his personal motivation. While in adulthood, the author is formed and plays the role to synthesize episodic information about oneself into an integrative and coherent life story. The author reconstructs past experiences and builds a picture of the future, enabling the individual to explain his actions as an actor, the motivation in his perspective as agent, and the self-image of the past, the present, and the future as a whole unity produced by the process of individual development McAdams, 2013).

McAdams (2013) emphasizes that these three layers are not autonomous or independent entities, nor are different roles played by an individual at different times—can be activated and deactivated just like a switch to adjust the circumstances. Rather it is the three ways for I to interact with me reflexively, without being fixated on when and how the process can occur. A psychologically mature individual can be present as an actor, agent, and author every time and everywhere.

**Prosociality**

Prosocial behavior is a voluntary action aimed to help or provide benefits for an individual or a group of people (Eisenberg & Mussen, 1989). The main factor that distinguishes prosocial behavior to helping act in general is that prosocial behavior is motivated by the individual's desire to help, not out of necessity or coercion. Although all prosocial behavior has the same goal: providing positive consequences for others, prosocial behavior is motivated by various motivations (Eisenberg & Mussen, 1989). The motivation is not always sincere and fully based on the desire to improve the welfare of others or in other words: altruistic. Rather, it can also be based on a desire for personal gain or convenience, as well as a mixture of both (Batson, Duncan, Ackerman, Buckley, & Birch, 1981).
The latest empirical findings and the theoretical models show that prosocial behavior is often aimed to build an altruistic or positive reputation, allowing the helper to benefit from others (Simpson & Willer, 2008). So it can be concluded that individuals tend not to behave prosocially if they perceive no future benefits that can be obtained with such positive reputation. But according to Haidt (2007), although there is a personal interest behind the prosocial behavior which is displayed, individuals still have a concern for others’ condition. Besides the selfish motivation, individuals still have a sincere desire to realize the harmony, decency, and cooperation in the group or community where they live. And eventually encourage individuals to internalize and display their conformity with the norms of society, especially in relation to achieve the harmony with others—which manifested in prosocial behavior (Frimer, Schaefer, & Oakes, 2014)

**Prosociality and Self**

Self as an entity that serves to regulate individuals’ behavior certainly has a major influence on how individuals behave, including prosocial behavior (Leary & Tangney, 2011). Referring to multilayered-self theoretical framework, Frimer, Schaefer, and Oakes (2014) examined the effect of different self-perspective on individual prosociality and showed that the effect does exist. The way individuals perceive or see themselves affects how they behave. When the individuals use actor's perspective, they tend to be more prosocial, while when the agent perspective is used, the individuals tend to be selfish.

Numerous studies show that self and its aspects play a role in regulating prosocial behavior or individuals’ prosociality (Carprara & Steca, 2007; Caprara, Alessandri, & Eisenberg, 2012; Lindsay & Creswell, 2014). Although the factors tested are quite varied and have different mechanisms, there is important similarity which relates them: the effects involve an individuals’ consciousness (thoughts and feelings). Further testing of the interaction between external stimulus and individuals’ self-regulation and self-awareness process in influencing behavior is useful to explain the deeper cognitive processes behind the situational prosociality tendency.

**Religion, God, and Prosociality**

Historically, religion and religious beliefs are often believed to be the source of human morality. All the major religions in the world explicitly teach prosocial behavior and unconditional kindness to others as a virtue (Preston, Ritter, & Ivan Hernandez, 2010; Norenzayan, & Shariff, 2008). For its adherents, religion itself becomes the source of individual values and social identity (Gaduh, 2012). So, it is reasonable that religious and religious beliefs are identified with prosocial behavior.

Numerous studies show that religious beliefs have positive correlations, or even causal relationships with prosocial behavior. Prosocial behaviors related to the religious aspects which are studied include the domains of charity, volunteering, morality, personality, and psychological well-being (Galen, 2012). In a study conducted by Saroglou (2006), it has been shown that religiosity is positively associated with the desire to help.
The cognitive beliefs and imaginations about the existence of God as a supernatural, omniscient, and omnipresent agent, accompanied by emotional rituals and strong commitments with religious groups, is predicted to encourage the genetically unrelated individuals to interact cooperatively (e.g., Atran & Norenzayan, 2004; Irons, 1991; Sausage & Ruffle, 2004). The concept of God which is activated implicitly known to improve prosocial behavior in anonymous dictator games (Shariff & Norenzayan, 2007). Research on gene-environment (G x E) interactions also shows that individuals are more prosocial when primed with religion (Sasaki et al., 2011).

There has been plenty of empirical research that investigated the relationship between religious-related aspects with prosocial behavior. The literature on religion and prosocial behavior is not only characterized by empirical findings, but also the variety of methods used to answer the research questions. But in addition to the diversity, there are important criticisms of previous studies on religious topics and prosocial behavior: research using self-report in showing the correlation between religion and prosocial behavior is only able to assess the planned behavior. However, if the prosocial behavior assessed is in the context of unplanned and spontaneous situations (e.g., bystander helping); or when religious-related signs are irrelevant to the context, for example when the target of prosocial behavior is less familiar or the member of outgroup, then the correlation between religiosity and prosociality will essentially be zero, or even negative. The same results are also applied when the manipulation methods are priming or contextual reminders about religion (Galen, 2012).

The absence of the religious identity of prosocial behavioral targets is one of the main limitation in the studies that claim a causal relationship between religion and prosocial behavior. Therefore, prosocial behavior which is based on religious factor becomes difficult to distinguish from the form of in-group favoritism. In a study of the relationship between religiosity and the desire to help others, it is shown that strong correlations are only applicable if the assistance is provided to the members of individual’s group, while there is no correlation if the assistance is provided to a stranger. Those results also confirm the argument that religion is related to the parochial altruism: the condition when altruism towards in-group members is combined with hatred against out-group members (Gaduh, 2012).

Preston and Ritter (2013) found that there were differences between the effect of religious prime and God prime. Religious prime only increases prosocial behavior towards members of in-group religions, while God prime also increases prosocial behavior which is aimed to people from the out-groups. Considering the difference effects between those form of prime, the author wants to restrict this research focus by only using God prime, based on the assumption that God prime affects a more general population compared to religious prime.

Methodology

Participants

Participants are students and alumni of Universitas Indonesia who are at least 18 years old. Participants come from a number of faculty in Universitas Indonesia which located in Depok, except from the Faculty of Psychology. A total of 124 participants were randomly divided into four experimental groups with the following distribution:
31 participants in actor-God prime group; 33 participants in actor-neutral prime group; 30 participants in agent-God prime group; and 30 participants in agent-neutral prime group. Participants ranged from age 18 to 24, with the mean age of 20 years (SD = 1.07); 59.7% were women and 40.3% were men. Most of the participants are Muslims (86.3%).

**Procedure**

In a $2 \times 2 \times 2$ mixed-design experiment, participants are randomly assigned into two groups, which based on the type of self (actor and agent, between-subject) and type of prime (God prime and neutral prime, between-subject). The prosociality of participants in each group are measured by comparing the degree of benefit which is given to themselves and the degree of benefits which is given to other people (beneficiary for myself and beneficiary for others, within-subject). This experiment used a web-based form that were accessed online as the instrument.

**Table 1: Experimental groups**

<table>
<thead>
<tr>
<th>Type-of-prime (between-subjects)</th>
<th>Type-of-self (between-subjects)</th>
<th>Recipient of Benefit (within-subjects)</th>
</tr>
</thead>
<tbody>
<tr>
<td>God</td>
<td>Actor</td>
<td>Myself</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Others</td>
</tr>
<tr>
<td>Agent</td>
<td>Myself</td>
<td>Others</td>
</tr>
<tr>
<td>Actor</td>
<td></td>
<td>Myself</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td>Others</td>
</tr>
<tr>
<td>Neutral</td>
<td>Myself</td>
<td></td>
</tr>
<tr>
<td>Agent</td>
<td>Myself</td>
<td>Others</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td>Others</td>
</tr>
</tbody>
</table>

The form consists of these key contents: (1) Task to unscramble groups of word (each consist of five words) into grammatical four words sentences. This task served as type-of-prime manipulation (God or neutral prime) (Shariff & Norenzayan, 2007); (2) Task to rate the importance of a number of life goals which are displayed or task to describe most important life goals. This task served as the type-of-self manipulation (Frimer, Schaefer, & Oakes, 2014); (3) Task to rate the degree of benefit (for oneself or for others) of the most important life goals. This task serves as a measurement of prosociality (Frimer, Schaefer, & Oakes, 2014); and (4) Measurement of religious centrality (The Centrality of Religiosity Scale, Huber & Huber, 2012).

**Type-of-self manipulation**

In the actor group, participants get the task to rate the importance of the displayed life goals. The system will automatically sort those life goals, from the most important to least important. In agent group, the task is to describe four most important life goals. After the task are completed, participants are asked to rate how beneficial each of their life goals are for themselves and other people.
Type-of-prime manipulation
Participants were asked to unscramble 10 word groups which consisting of 5 random words into a grammatical sentence that consists of 4 words (by eliminating one word). Participants do not know the actual purpose of this assignment. In the God prime group, there are words that related to the concept of God or religion within the group of words that must be unscrambled (e.g., creator, pray, and faith. While in the control group or neutral prime group, the group of words were not designed to activate specific concepts.

Religious centrality is measured using The Centrality of Religiosity Scale (CRS). Author include the religious centrality as one of the measured variable to test its relationship with both God prime and prosociality.

Results

Table 2: The prosociality across groups

<table>
<thead>
<tr>
<th>Groups</th>
<th>Degree of life goals benefit for</th>
<th>$M$</th>
<th>$SD$</th>
<th>$t$</th>
<th>$p$</th>
<th>Cohen's $d$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actor - God prime</td>
<td>Myself</td>
<td>87.53</td>
<td>9.00</td>
<td></td>
<td>.024</td>
<td>-0.61</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td>80.08</td>
<td>14.61</td>
<td>-2.34</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Myself</td>
<td>93.54</td>
<td>6.89</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Actor - neutral prime</td>
<td>Others</td>
<td>87.82</td>
<td>10.20</td>
<td>-2.70</td>
<td>.010</td>
<td>-0.65</td>
</tr>
<tr>
<td></td>
<td>Myself</td>
<td>91.90</td>
<td>7.51</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agent - God prime</td>
<td>Others</td>
<td>79.36</td>
<td>16.45</td>
<td>-3.53</td>
<td>.001</td>
<td>-0.98</td>
</tr>
<tr>
<td></td>
<td>Myself</td>
<td>92.41</td>
<td>8.09</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agent - neutral prime</td>
<td>Others</td>
<td>83.63</td>
<td>12.44</td>
<td>-3.08</td>
<td>.004</td>
<td>-0.84</td>
</tr>
</tbody>
</table>

Results in Table 1 indicate that all groups tend to behave selfishly (tend to benefit themselves rather than others). But in addition to this similarity, there are also differences if the groups are compared to each opposite group. Actors who with God prime behave more prosocial than those who get prime neutral, whereas agents with God prime is more selfish than agents with neutral prime. When compared based on the type-of-self, the actors tend to be more prosocial than the agent in both God and neutral prime condition.
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Contact email: gumilangra@gmail.com
Contact email: gumilang.reza.alumni@ui.ac.id
An Initial Development of the Thai Version of the Social Anxiety - Acceptance and Action Questionnaire (SA-AAQ) for Undergraduate Students

Kunpariya Siripanit, Chulalongkorn University, Thailand
Kullaya Pisitsungkagarn, Chulalongkorn University, Thailand

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Abstract
Adjustment to college transition can be challenging. The challenges could compromise the benefits undergraduates could obtain from college learning. The anxiety that the undergraduates experience upon their social interaction could be one of such challenges. Recently, attempts have been made to alleviate such anxiety referring to the framework of Acceptance and Commitment Therapy. Relevant assessment measures based on this framework, however, is yet to exist within the Thai cultural context. The current study, hence, aims to develop a culturally-appropriate measure of psychological flexibility that helps inoculate individuals from social anxiety. The Social Anxiety – Acceptance and Action Questionnaire (SA-AAQ) (MacKenzie & Kocovski, 2010) was translated into Thai. Item-Objective Congruence Index was found satisfactory prior to the Thai-version SA-AAQ was administered in 105 undergraduates from two large universities in Bangkok. Forty-nine male and fifty-six female undergraduates, with the mean of age of 20.21 years, participated in the study voluntarily. Participants responded to the Thai version SA-AAQ and the measures of social anxiety (Brief Fear of Negative Evaluation Scale: BFNE). Initial data suggested satisfactory psychometric properties of the Thai-version SA-AAQ. Reliability analyses suggested good internal consistency, shown in the Corrected Item-Total Correlation ($p < .05$) and Cronbach’s Alpha. Discriminant index was also satisfactory ($p < .05$). Concurrent validity was demonstrated through the negative association between the score on the Thai version SA-AAQ and the on the measure social anxiety ($p < .001$). Discussions were made regarding the Thai-version SA-AAQ psychometric properties and its potential applications within the research and clinical contexts.

Keywords: Cross-cultural Scale Development, Social Anxiety, Acceptance, Undergraduate Students
Introduction

Undergraduate students have to adjust to college life---they need to develop social skills in adapting to university activities (Martin & Fabes, 2009). However, some could have adjustment difficulties or might not successfully adjust to their academic environment. This could lead compromised confidence and, in some cases, anxiety in social adjustment. When they cannot successfully manage the anxiety, maladaptive behaviors may ensue. These include avoiding new friends, being rejected by friends, and escaping from group activities or public performances. These aspects of anxiety, which could be viewed as social anxiety, is characterized by fear of eliciting negative evaluation from others in social interactions (Watson & Friend, 1969; Leary, 1983). Late adolescents are one of the population at risk who could suffer from such anxiety because, during this period, adolescents are particularly vulnerable to attending to and adjusting to others’ evaluation (Erikson, 1968; Martin, & Fabes, 2009).

In the long run, social anxiety could lead to various limitations and prevent the undergraduate students from developing academically and socially, particularly from enhancing their social networking and social skills. Consequently, social anxiety could compromise their well-being. Furthermore, for some, this potentially leads to the risk in developing mental health problems (Jackson & Finney, 2002).

Formerly, social anxiety is viewed based on Cognitive Behavioral Model (Mayo-Wilson, Dias, Mavranezouli, Kew, Clark, Ades, & Pilling, 2014). Empirical evidence has accumulated and supported relevant intervention (Corey, 2012). However, reports emerge regarding the limited extent to which some individuals respond to CBT. Compromised long term effect of the treatment is similarly reported (Arch & Craske, 2009; Clark et al., 2006).

Recently, Acceptance and Commitment Therapy (ACT) (Hayes et al., 1999) has emerged as one of the therapeutic approaches that helps alleviate symptoms and avoidance behaviors relevant to social anxiety. ACT is the third wave of CBT and applies the concept of mindfulness existential approach into this mainstream treatment (Hayes, 2004). ACT aims to improve psychological flexibility that would increase the acceptance of thoughts and feelings. Hence, it helps clients to choose valued directions for their lives and to commit themselves to those values (Hayes, Luoma, Bond, Masuda, & Lillis, 2006).

The Action and Acceptance Questionnaire (AAQ) has been developed for evaluating psychological flexibility in general. The AAQs has been applied to various specific contexts; namely, cigarette smoking (Gifford, Kohlenberg, Hayes, Antonuccio, Piasecki, Rasmussen-Hall et al., 2002), chronic pain (McCracken, Vowles, & Eccleston, 2004), and body image (Sandoz, 2010). Recently, many researchers become more interested in studying the outcomes of ACT intervention for social anxiety (e.g., Dalrymple & Herbert, 2007; Herbert & Cardaciotto, 2005; Kocovski, Fleming, & Rector, 2009; Kocovski, Fleming, Hawley, Huta & Antony, 2013; Koszycki, Benger, Shlik, & Bradwejn, 2007; Ossman, Wilson, Storaasli, & McNeill, 2006) so as to develop a relevant treatment that
helps reduce the effect of social anxiety symptoms within the ACT perspective. Therefore, a study of an instrument designed particularly to evaluate social anxiety based on this perspective becomes necessary. MacKenzie and Kocovski (2010) have purposed the instrument called Social Anxiety-Acceptance Questionnaire (SA-AAQ), which has been promising in measuring ACT-based social anxiety. The use of this instrument within the Thai cultural context, however, remains restricted, given the lack of proper scale development.

Therefore, the purpose of the current study is to development a Thai-version of the SA-AAQ, that helps assess social anxiety based on the ACT perspective. The development should provide an assessment instrument that paves the way for further researching and treatment of social anxiety based on the ACT perspective. The target population for the use of this instrument will be undergraduate students, given the pervasive impact that social anxiety could have on them as previously outlined.

Methods

Participants

Participants consisted of 105 undergraduates (Age range: 18-24; \(M_{\text{age}} = 20.21; SD_{\text{age}} = 1.30; 55.3\% \text{ female}\) from two large universities from the Bangkok Metropolitan area, Thailand. Forty students were from a public university and 65 students from a private university. Participants were not diagnosed with any psychological disorders and were not receiving counseling/psychotherapy at the time of data collection.

Measures

Social Anxiety-Acceptance and Action Questionnaire (SA-AAQ) (MacKenzie & Kocovski, 2010) was used to measure social anxiety based on the ACT perspective (e.g., “If I am anxious in a social situation, I can still remain in it”). This seven-point Likert scale (1= Never true, 7= Always true) consists of 19 items with score reversal in 13 items (i.e., Items 5, 6, 7, 8, 10, 12, 13, 14, 15, 16, 17, 18, 19). Originally, the scale was examined factor analysis, correlational and regression analyses. Reliability analysis revealed a high degree of internal consistency as indicated by Cronbach’s alpha (\(\alpha = .94\)).

Brief Fear of Negative Evaluation Scale (BFNE) (Leary, 1983) was also administered to examine concurrent validity of the Thai-version SA-AAQ. BFNE was used to assess participants’ fears of others’ negative evaluation in social situations (e.g., “I often worry that I will say or do the wrong things”). This five-point Likert scale (1= Not at all characteristic of me, 7= Extremely characteristic of me) consists of 12 items with score reversal in 4 items (i.e., Items 2, 4, 7, 10). Reliability analysis revealed a high degree of inter-item reliability of the BFNE as indicated by satisfactory Cronbach’s alpha (\(\alpha = .97\)) and 2-week test-retest reliability (\(r = .94\)).
Procedure

Data collection proceeded only after the study proposal was approved by the department-level academic committee and after a permission for the scale usage was obtained from its developer. Then, the scale was translated into Thai and adapted to fit within the Thai cultural context. The original SA-AAQ consists of 19 items; however, an additional item, with semantic equivalence, was added to each translated item. As a result, the Thai SA-AAQ has 38 items. All of the items were reviewed and approved by a panel of three psychologist experts for their semantic equivalence to the original items. Then, the Thai SA-AAQ was administered to the participants together with the Thai-version BFNE, which has been translated into Thai and received a similar review, for data collection. Finally, psychometric property analyses were conducted. These included the validity analyses (i.e., content validity, discriminant analysis, and concurrent validity) and reliability analyses (i.e., Cronbach’s alpha and CITC).

The expert review outcomes yielded overall satisfactory IOCs, the ratings from the three experts were at or beyond .66. Five items failed to meet this criterion and were excluded. Then, the remaining 33 items were tried out. Items with satisfactory validity and were closest semantically to the original items, were selected for the final scale.

Results

Validity Analyses

The expert review outcomes yielded an Item-Objective Congruence (IOC), which required that each IOC items had to be rated by the three experts as 0.6 and beyond. Five items failed to meet this criteria and were excluded. Then, the remaining 33 items remained for the tryout. Results from the validity analyses of items that were closest semantically to the original item reviewed were satisfactory. In discriminant analysis, those obtaining overall low (27th percentile) and high scores (73th percentile) displayed significant differences in all of the items \( (p < .001) \). Concurrent validity demonstrated that positive significant correlation between SA-AAQ and BFNE( \( r = .55**, p < .01, 2\)-tailed).

Reliability Analyses

All of the items were found to have satisfactory internal consistency, as shown in the Corrected Item-Total Correlations, ranging .25-.74 (\( p < .05 \)). Finally, the Cronbach’s alpha estimate of an overall scale was .88, suggesting good internal consistency.

Discussion

The purpose of the current study is to evaluate the quality of the Thai version SA-AAQ when being used with undergraduate students in Bangkok, Thailand. Initial findings provided preliminary support for the validity of the Thai version of the SA-AAQ when used with undergraduate students. The Thai-version SA-AAQ is psychometrically sound.
and its psychometric properties were comparable to those of its original version (MacKenzie & Kocovski, 2010).

The current findings help take away the initial concerns regarding cultural specificity of the SA-AAQ, given its initial development for usage within the Western culture. In the process of developing the Thai SA-AAQ, the main focus was not only to keep the semantic equivalence of its original items but, meanwhile, also to adapt the scale to accommodate to the Thai culture and language. Some behaviors which are regarded as symptoms of social anxiety within the Western culture could be expressed differently within the Eastern culture. For instance, being careful with emotional expression is likely to be more desirable in Eastern collectivistic culture and is less congruent with the individual emotional expression, which is more encouraged in Western individualistic culture (Hofstede, 1980; Markus & Kitayama, 1994).

In addition, these initial findings provide preliminary evidences promising of the use of the Thai-version SA-AAQ for the assessment of social anxiety within Thai undergraduates. This should help pave the way for research endeavors and therapeutic intervention. Given the reports in the recent years of increased incidents of social anxiety in the adolescents in Asian countries (Lai, Mak, Watanabe, Jeong, Kim, Bahar, Ramos, Chen, & Cheng, 2015), the possibility that the SA-AAQ could be employed and developed for use within these contexts is promising.

Despite these promises, it is important to recognize the preliminary nature of the current findings. Future research could bring about improvement for the current findings various ways. For instance, the increase of sample size, the more comprehensive use of criteria for validity analysis, and the more sophisticated data analysis, as well as the use of test-retest analysis should bring about increased information regarding the psychometric properties of the SA-AAQ.
Appendix

*Corrected Item-Total Correlation (CITC) of the Social Anxiety-Acceptance Questionnaire (SA-AAQ) Thai Version (N=105)*

<table>
<thead>
<tr>
<th>Item of the SA-AAQ</th>
<th>CITC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. ถึงแม้ว่าฉันจะรู้สึกกังวลในการเข้าสังคม ฉันยังคงสามารถรับมือได้</td>
<td>.456</td>
</tr>
<tr>
<td>2. แม้ฉันมีความกังวลในการเข้าสังคม ฉันก็สามารถอยู่ในสถานการณ์เช่นนั้นได้</td>
<td>.406</td>
</tr>
<tr>
<td>3. ฉันไม่ค่อยปล่อยให้ความกังวลในการเข้าสังคมมาหยุดฉันจากการทำอะไร</td>
<td>.565</td>
</tr>
<tr>
<td>4. ความกังวลในการเข้าสังคมไม่ได้รบกวนการดำเนินชีวิตประจำวันของฉัน</td>
<td>.465</td>
</tr>
<tr>
<td>5. ความกังวลในการเข้าสังคมเป็นอุปสรรคที่ทำให้ฉันดำเนินชีวิตอย่างที่ต้องการไม่ได้</td>
<td>.766</td>
</tr>
<tr>
<td>6. ฉันยินดีที่จะสละสิ่งสำคัญๆในชีวิตไปเพื่อให้หยุดกังวลเมื่อต้องเข้าสังคม</td>
<td>.324</td>
</tr>
<tr>
<td>7. ฉันหวังมากเกินไปว่าฉันจะรู้สึกกังวลหรือไม่มีต้องเข้าสังคม</td>
<td>.498</td>
</tr>
<tr>
<td>8. ฉันกลัวว่าจะไม่สามารถควบคุมความกังวลของตนเองเมื่อเข้าสังคม</td>
<td>.651</td>
</tr>
<tr>
<td>9. เมื่อฉันจะวิตกกังวลเมื่อต้องเข้าสังคม ฉันยังคงดำเนินตามเป้าหมายที่ตั้งใจไว้ได้</td>
<td>.557</td>
</tr>
</tbody>
</table>
ความกังวลเมื่อเข้าสังคมของฉันต้องลดลงก่อนที่ฉันจะเริ่มต้นทำอะไรที่สำคัญๆในชีวิตได้.415

ความวิตกกังวลในการเข้าสังคมไม่ได้ขัดขวางการใช้ชีวิตของฉัน.550

ฉันคิดช้าๆ ถึงความวิตกกังวลในการเข้าสังคมของฉัน.759

ฉันคิดช้าๆ ถึงความวิตกกังวลในการเข้าสังคมของฉัน.640

ฉันคิดช้าๆ ถึงความวิตกกังวลในการเข้าสังคมที่ฉันมีอยู่.760

ฉันบอกตัวเองว่าไม่ควรคิดถึงความวิตกกังวลในการเข้าสังคมอย่างที่คิดอยู่.251

ฉันไม่พอใจที่ตนเองวิตกกังวลในการเข้าสังคมอย่างไม่สมเหตุสมผล.696

ฉันรับไม่ได้ที่ตนเองรู้สึกกังวลเมื่อต้องเข้าสังคม.633

α = .88
References


Contact email: siripanit.fah@gmail.com
The Relationships among Couple Bond, Family Responsibility, And Couple Satisfaction in Thai Couples

Wachrapong Foophrateepsiri, Chulalongkorn University, Thailand
Somboon Jarukasemthawee, Chulalongkorn University, Thailand

Abstract
With the increased number of couple relationship problems within Thailand, it becomes necessary to find ways to enhance these relationships. One such way was to clarify the expectation that the partners have regarding their relationships, or relationship standards (Baucom, Epstein, Sayers & Sher, 1989). These standards are generally viewed as relevant to two domains: 1) couple bond and 2) family responsibility (Hiew, Halford, Liu, & van de Vijver, 2015a). Couple bond involves behavior that facilitates emotional closeness and communicates caring within the couple whereas family responsibility involves representing the partner’s and family’s face and maintaining relationship harmony with the partner's extended family. This research study hence aims to examine how relationship standards are associated with couple satisfaction in Thai couples. How the association is manifested in male and female will be compared. Data was collected in 260 Thai individuals who had been in intimate relationship at least for a year (age 18 – 40 years). Participants responded to relevant measures. Multiple Regression Analysis was conducted. Findings suggested that, for male participants, couple bond and family responsibility are significantly and positively correlated with couple satisfaction ($r=.51$, $p<.01$ and $r=.32$, $p<.01$ respectively) and accounted for 26 percent of the total variance of couple satisfaction ($R^2=.264$, $p<.001$). In their female counterparts, the two factors significantly and positively correlated with couple satisfaction ($r=.32$, $p<.01$ and $r=.24$, $p<.01$ respectively) and accounted for 10 percent of its total variance ($R^2=.104$, $p<.01$). Findings were discussed in terms of research contribution and clinical implication in couple relationship enhancement.

Keywords: Couple bond, Family responsibility and Couple satisfaction
Introduction

In the present, Thailand, a Southeast Asian country, encounters with many couple relationship problems. Thailand National Statistic Institution reported that divorced couple had been increased for 27 percent in nine years (from 2004 to 2013; National Statistical Office of Thailand, 2013). Couple relationship problems can cause some disadvantages for couples. For the example, Beach, Arias and O'Leary (1986) found that poor quality of the marital relationship is significantly related to depression symptomatology for both men and women. Marital distress is also associated with suppressed immune function, cardiovascular arousal and an increase of stress-related hormones (Gottman & Notarius, 2002). Past research has identified a number of factors that influence relationship satisfaction. For example, investigations by Gottman (1979) indicated communication and problem-solving styles play a role in determining relationship satisfaction. Similarly, other researchers showed that personal dispositions, such as emotional intelligence (Malouff, Schutte, & Thorsteinsson, 2014), empathy (Davis & Oathout, 1987), and private self-consciousness and perspective-taking (Franzoi, Davis, & Young, 1985), also contribute to relationship satisfaction.

Recently, research studies indicated that understanding couple relationship standard, the beliefs that couples hold about what their relationships or partners should be like (Baucom, et. al., 1989), can enhance couple relationship (Baucom, Epstein, Rankin, & Burnett, 1996); Wunderer & Schneewind, 2008; Hiew, Halford, Vijver, & Liu, 2015b). The endorsement of standards by spouses, and the similarity of the standards endorsed by the two spouses, are associated with relationship satisfaction (Hiew, Halford, Vijver, & Liu, 2015b). Hence, this research study aims to examine how relationship standards are associated with couple satisfaction in Thai couples.

Relationship Standards

Within psychological research, several measures have been developed to assess relationship standards. The Inventory of Specific Relationship Standards (ISRS; Baucom et al., 1996) is a 60-item self-reported measure of relationship standards. The scale captures three broad areas of relationship standards: boundaries, power-control, and investment. Boundaries refer to the extent to which partners act independently or interdependently to each other (e.g., time spent together, degree of self-disclosure, and shared activities). Power-control refers to the extent to which partners should exert their power or control over another in relationships. Finally, investment refers to the extent to which partners should explicitly invest in their relationships. The ISRS was validated in a sample of 386 couples in the U.S. Results revealed that the scale possessed moderate degree of internal consistency with Cronbach’s alpha for each sub-scale ranging from .65 to .77. Moreover, the scale also possess convergent validity to some extent as results showed positive correlation with other relationship standard scale (i.e., the Relationship Standard Measure; RSM; Vangelisti & Daly, 1997) and marital functioning (e.g., marital adjustment).

The RSM (Vangelisti & Daly, 1997) is a self-reported measure of 30 relationship standards. The scale requires participants to rate these standard along two dimensions: importance and fulfillment. Results obtained from 122 adults revealed that the standards load onto seven factors which are labelled: relational identity, integration,
affective accessibility, trust, future orientation, role fulfillment, and flexibility. In terms of importance and fulfillment, alpha coefficient for each factor range from .63 to .82 and .62 to .88, respectively. These data indicate that the RSM possess moderate to high internal consistency.

The Relationship Brief Inventory (RBI; Eidelson & Epstein, 1982) is an 8-tem self-reported measure of endorsement of standards which are either irrational or predictive of relationship distress. These include “argument is destructive;” “mind-ready is expected;” “partners cannot change;” “the sexes are different;” and “sexual perfectionism.” The scale was administered to 100 clinical and non-clinical participants along with several other measures. Results showed that the scale possessed good internal consistency with alpha coefficients of its sub-scale ranging from .72 to .81. The RBI also showed convergent and construct validity. All of its sub-scales, except from “the sexes are different” were mildly but positively correlated with a measure of irrational beliefs. They were also mildly to moderately positively correlate with an index of marital satisfaction.

Hiew, Halford, van de Vijver, and Liu (2015a) recently developed an intercultural measure of relationship standards. The Chinese-Western Intercultural Couple Standard Scale (CWICSS) is an 69-item self-reported measure of relationship standards. The scale contains two factors: couple bond and family responsibility. These two factors in turn consist of four sub-scale each. Couple bond refers to romantic love and psychological intimacy between partners, and includes demonstration of love, demonstration of caring, intimacy expression, and intimacy responsiveness. Demonstration of love is the expressions of love through behavior and sexual activities; demonstration of caring is the expression of caring to each other (e.g., providing emotional support to one’s partner in time of distress); intimacy expression is behavior which conveys personal feelings to each other (e.g., telling positive or negative thoughts about one’s partner to partner); and intimacy responsiveness is reaction to partners’ expressions of love, caring, and intimacy (e.g., expressing happiness in response to partner’s birthday present).

Research showed that these standards are beneficial to relationships, at least within Western contexts. For example, demonstration of love through discussion of sexual intercourse facilitates the development of romantic intimacy (Harvey, Wenzel, & Sprecher, 2004). Likewise, demonstration of caring in the form of emotional support for one’s partner promotes warm feelings towards each other (Erickson, 2005). Expressing genuine emotions to one’s partner was positively associated with relationship satisfaction (Halford, 2011). Finally, responding to one’s partner contributes to positive relationship growth (Berg, 1987).

Family responsibility refers to relations between one and one’s partner’s family and social circles after marriage, and involves relations to extended family, face/Mian Zi, relationship harmony, and gender roles. Relations with extended family refer to the relationships between one and one’s partner’s family and include implicit responsibilities such as taking care of partner’s parents or siblings. Face refers to the responsibility to protect and promote honor and dignity of family. Relationship harmony refers to cooperative relationships within family. Finally, gender role refers to expected responsibility and behavior that partners should commit to according to
their gender. Research showed that these standards are more valued among Chinese than Westerners (e.g., Cardon & Scott, 2003; Kwan, Bond, & Singelis, 1997).

Thai Culture and Relationship Standards

Thailand is located in the South East Asia, and is a unique blend of cultures. There is a substantial portion of Thais with Chinese ancestry. There is also a strong influence of Indian culture and of Buddhism, which is the Thai national religion. Thailand is identified as a culture of collectivism rather than individualism (Hofstede, 2001). It is also a tight culture which means Thais have high value of importance on adherence to socially normative behavior (Gelfand et al., 2011). In terms of economy, Thailand is a developing country, with substantially lower levels of Gross Domestic Product relative to Western countries; and poverty still posts significant threat within the country (The World Bank, 2017). This context likely accounts for the high valuing of fulfilling basic survival needs, such as the need to provide for family, and lesser valuing of individual needs for freedom (The World Values Survey, 2016).

With the increased number of couple relationship problems within Thailand, it becomes necessary to find ways to enhance couple relationships. One such way was to clarify the expectation that the partners have regarding their relationships, or relationship standards. This study aims to examine relationships among couple relationship standards, namely couple bond, and family responsibility, and couple satisfaction in Thai couples.

Aims of the Research

The aim in the present study was to examine the relationship between couple bond, family responsibility as in couple relationship standards, and couple satisfaction in Thai male and female couples.
Method

Participants

Participants were 260 volunteers (130 males and 130 females) residents of Thailand, who aged between 18 to 40 years old (male: $M = 26.27$, $SD = 5.19$ and female: $M = 25.84$, $SD = 5.02$). They had been in intimate relationship at least 12 months, because this period would pass early relationship development and cross to the intimacy stage (Fletcher, Simpson, & Thomas, 2000). The mean of intimate relationship period for males was 59.59 months ($SD = 40.06$) and females was 45.72 months ($SD = 41.52$). Two hundred and fourteen (92.7%) of the sample were Buddhist and 212 of the sample had a university degree or higher. The entire sample was born in Thailand.

Measures

All measures were originally in English and were translated into Thai and then independently back translated to English. The questionnaires could be completed online and paper-pencil.

The CWICSS (Hiew et al., 2015a) assesses endorsement of two couple relationship standards: Couple Bond, 32 items describing behavior that facilitates emotional closeness and communicates caring within the couple relationship (e.g., “Express their love for each other in words every day” and Family Responsibility, 37 items describing responsibilities toward the extended family, supporting the partner’s and family’s face, maintaining relationship harmony and fulfilling gender roles (e.g., “Do not disagree with family elders”, “Do not disagree with each other in public”, “Do not speak about things that may lead to conflict” and “The man financially supports his partner and children”). All items are rated on a 6-point Likert scale from 0 (not important) to 5 (extremely important). The Couple Bond and Family Responsibility factors have high internal consistency (Cronbach’s alpha = .89 and .92 respectively) in Thai version.

The Couple Satisfaction Index (CSI: Funk & Rogge, 2007) is a 32-item measure of couple satisfaction (e.g., “In general, how often do you think that things between you and your partner are going well?”). The CSI has good internal consistency and high construct validity. In the Thai couple sample, the CSI had excellent internal consistency, Cronbach’s alpha = .96

Procedure

An online questionnaire was administered by the couple-related websites. The focus of the present study was the self-report measures of couple relationship standards and couple satisfaction.
Results

First we conducted correlation analysis between Couple Bond, Family Responsibility and Couple Satisfaction. Then Multiple Regression Analysis was conducted.

Table 2
*Mean and standard deviation of Couple bond, Family Responsibility and Couple Satisfaction in Thai male and female couples*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Male Mean</th>
<th>Male SD</th>
<th>Female Mean</th>
<th>Female SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Couple Bond</td>
<td>131.69</td>
<td>17.27</td>
<td>136.23</td>
<td>18.61</td>
</tr>
<tr>
<td>Family Responsibility</td>
<td>133.39</td>
<td>24.67</td>
<td>138.44</td>
<td>23.30</td>
</tr>
<tr>
<td>Couple Satisfaction</td>
<td>119.40</td>
<td>25.78</td>
<td>118.04</td>
<td>33.42</td>
</tr>
</tbody>
</table>

Correlation

The resulted, presented in Table 3, indicated that for male participants, the couple bond was positively correlated with couple satisfaction (.51, \(p < .01\)), while the family responsibility was positively associated with couple satisfaction (.32, \(p < .01\)).

Table 3
*Summary of correlation statistic between Couple Satisfaction, Couple Bond and Family Responsibly in Thai male couples*

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Couple Satisfaction</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Couple Bond</td>
<td>.51*</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>3. Family Responsibility</td>
<td>.32*</td>
<td>.48*</td>
<td>-</td>
</tr>
</tbody>
</table>

Note. *\(p < .01\)

The resulted of Thai female couples (Table 4) shown in the similar way of male couples that the couple bond was positively correlated with couple satisfaction (.32, \(p < .01\)), while the family responsibility was positively associated with couple satisfaction (.24, \(p < .01\)).

Table 4
*Summary of correlation statistic between Couple Satisfaction, Couple Bond and Family Responsibly in Thai female couples*

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Couple Satisfaction</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Couple Bond</td>
<td>.32*</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>3. Family Responsibility</td>
<td>.24*</td>
<td>.74*</td>
<td>-</td>
</tr>
</tbody>
</table>

Note. *\(p < .01\)
Multiple Regression Analysis

The multiple regression model for male couples with two predictors, couple bond and family responsibility, produced $R^2 = .264$, $F(2, 127) = 22.776$, $p < .001$. As can be seen in Table 5, couple bond had significant positive regression weights, indicating Thai male couples with higher scores on these scales were expected to have couple satisfaction, after controlling for the Family Responsibility in the model. In the contrary, family responsibility did not contribute to the multiple regression model.

Table 5

<table>
<thead>
<tr>
<th>Variable</th>
<th>$b$</th>
<th>Std. $\beta$</th>
<th>$R$</th>
<th>$R^2$</th>
<th>Adjusted $R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Couple Satisfaction</td>
<td>.514</td>
<td>.264</td>
<td>.252</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>15.361</td>
<td>15.580</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Couple Bond</td>
<td>.679</td>
<td>.130</td>
<td>.455**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Family Responsibility</td>
<td>.110</td>
<td>.091</td>
<td>.105</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. $b =$ unstandardized beta coefficient, Std. $\beta =$ standard error, $\beta =$ standardized beta coefficient and Note. **$p < .001$

The multiple regression model for Thai female couples with two predictors, couple bond and family responsibility, produced $R^2 = .090$, $F(2, 127) = 7.410$, $p = .001$. As can be seen in Table 6, couple bond had significant positive regression weights, indicating Thai female couples with higher scores on these scales were expected to have couple satisfaction, after controlling for the Family Responsibility in the model. In the contrary, family responsibility did not contribute to the multiple regression model.

Table 6

<table>
<thead>
<tr>
<th>Variable</th>
<th>$B$</th>
<th>Std. $E$</th>
<th>$\beta$</th>
<th>$R$</th>
<th>$R^2$</th>
<th>Adjusted $R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Couple Satisfaction</td>
<td>.323</td>
<td>.104</td>
<td>.090</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>38.901</td>
<td>20.841</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Couple Bond</td>
<td>.575</td>
<td>.225</td>
<td>.320*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Family Responsibility</td>
<td>.006</td>
<td>.179</td>
<td>.004</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. $b =$ unstandardized beta coefficient, Std. $E =$ standard error, $\beta =$ standardized beta coefficient and *$p < .01$

Discussion

The current study is the first study in Thailand regarding couple relationship standards. Also, this offers the first examination of how endorsement of couple relationship standards is associated with couple satisfaction in Thai couples. As hypothesized, couple bond and family responsibility, as in couple relationship standards are positively correlated with couple satisfaction in both Thai male and
female couples. This result resonates past studies (Hiew, Halford, Vijver, & Liu, 2015b). For Thai male couples, the association between couple bond and couple satisfaction is stronger than the association between family responsibility and couple satisfaction. These results suggested that Thai male partners might focus more on relationship within the couple more than the relationship that the couple had with their environment. Similar findings were found in Thai female partners. However, the associations were lower in these participants, both in terms of couple bond and family responsibility. As suggested by Vangelisti and Daly (1997), female couple relationship standards were less fully met than their male counterparts; therefore, couple bond and family responsibility appeared to affect to couple satisfaction in females to a lesser extent than in males.

Based on the outcomes of the regressive analysis, only couple bond was found to significantly predict couple satisfaction in both Thai male and female couples (26.4 % and 10.4% of variance respectively). These results partially support previous studies. Based on Hiew, Halford, Vijver, and Liu’s investigation of (2015b) couple bond and family responsibility in Australian and Chinese couples, both couple bond and family responsibility predicted couple satisfaction. Two explanations might be viewed as relevant to the current results. Firstly, Thailand has been classified as collectivistic culture and prioritized social and family’s needs to individual’s needs (Gelfand et al., 2011). Based on this cultural orientation, couple bond and family responsibly might not be fully interdependent to each other. The second plausible reason is that most of participant (80%) has high education, at least college graduation. This could expose them to Westernized culture and lead them to be more individualistic and place more important to individual couple relationship.

**Limitation and Future Directions**

Despite various promises, findings from the current study should be viewed in light of the study unique characteristics. All of the participants in the current study were recruited online. Without information regarding their existing relationship, it is possible that some partners of the same couples were among the respondents; and this could potentially could potentially violate the assumptions of factor analysis, despite the attempts of the screening checklist on the first page of the survey. Additional unique characteristics of the participants could be viewed as the aforementioned relatively high level of education of the participant, various groups of participants need to be addressed in future studies so as to expand the finding generalization. Lastly, a qualitative study should be further conducted.

**Acknowledgements**

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References


**Contact email:** Wachrapong.f@gmail.com
Abstract
This research study the relationship and effect among corporate social responsibility (CSR), organizational citizenship behavior (OCB), and organizational effectiveness (OE) of the listed companies in the Stock Exchange of Thailand. Data were collected via questionnaires from employees in 217 listed companies. Multi-stage sampling was used. Data were analyzed using standard statistical method and structural equation modeling (SEM).

The finding found that all factors and each variable were at high level with values between 4.39 – 4.78. The relationships among latent variables were statistically significant with correlation coefficients between 0.619-0.873. The confirmatory factor analysis revealed that the measurement model was consistent with empirical data with standardized factor loading values between 0.501-0.898. All factor loading indicators were statistically significant and $R^2$ were between 0.251-0.807. Latent variables had CR = 0.798-0.879 and AVE = 0.507-0.708. From SEM result found that the hypothesized model consistent with empirical data with fit indices were as follows: $\chi^2/df = 2.40$, RMSEA = 0.077, GFI = 0.936, CFI = 0.980 and NNFI = 0.972. From the effect result found that CSR had positive direct effect toward OCB and OE significantly, OCB had positive direct effect toward OE significantly, and CSR had positive indirect effect toward OE via OCB significantly.

The listed companies in the Stock Exchange of Thailand should operate their business with the concept of CSR by taking account on economic, legal, ethical and philanthropic responsibility. When employees perceive CSR, it will effect on employee extra role behavior or OCB by behave altruism, sportsmanship, courtesy and civic virtue behavior. Finally, organizational effectiveness in aspect of entrepreneurial viability and profitability and growth will increase.

Keywords: Corporate social responsibility, Organizational citizenship behavior, Organizational effectiveness
Introduction

Under globalization, business continues its mission to move forward by changing business model to be socially responsible corporation. This concept is called corporate social responsibility (CSR). CSR focus on profit, society and environment simultaneously and involves several stakeholders. Carroll and Buchhlotz recommended that employee should be focused primarily on CSR study. (Carroll and Buchhlotz, 2006). However, most of the studies are concerning about CSR that impact only on employee attitudes such as organizational commitment (Husted, 2000). There are a few research that study the effect of CSR on employee behavior especially organizational citizenship behavior (OCB) (Swanson and Niehoff, 2001). The importance of the study CSR is to consider the impact on organizational effectiveness (OE) (Boswell, 1976).

Due to above reasons and also there are just only a few empirical research that study the relationship between CSR and employee (Hansen et al., 2011). It is interesting to study a causal relationship between CSR, OCB and OE.

Research Objectives

1. To study the relationship between CSR, OCB and OE.
2. To study the effect between CSR, OCB and OE

Corporate social responsibility

Corporate social responsibility (CSR) is the concept of doing business that related to corporate profit and also taking into account the impact on the environment and social issues simultaneously. It is the concept that involves responsibilities towards all stakeholders. CSR contributes to sustainability. Carroll (1991) proposed a pyramid of CSR which includes economic, legal, ethical and philanthropic responsibility. Many scholars found csr affect organizational effectiveness (OE). (Maignan and Ferrell 2001; Cochran and Wood, 1984) and organizational citizenship behavior (OCB) (Hansen et al., 2011; Lin et al., 2010). This concept results hypotheses H1 and H2.

Organizational citizenship behavior

Organizational citizenship behavior (OCB) is an extra role behavior. Employees are willing to do willingly. It is the behavior that encourages organizations operating smoothly (Podsakoff and Mackenzie, 1997) and contributes to organizational effectiveness (Ahmadi, 2011; Organ, 1988). This concept result hypotheses H3.

Organizational effectiveness

Organizational effectiveness (OE) is the concept that related to the ultimate goal of the business. It is an assessment tool for evaluate successful of the organization. Organizational effectiveness comprises of various dimensions to measure (Steers, 1977b) that effect measuring tools unstable (Steers, 1977a). Consistent with Zahra and
LaTour (1987) who indicated that this concept has not yet crystallized or there are several approaches to measure organizational effectiveness. (Daft, 1986)

Conceptual Framework

After reviewing the concept, theory and related research, the conceptual framework is shown in the figure 1 below:

![Conceptual Framework Diagram]

Fig. 1: Conceptual Framework

Research Method

**Population and sample:** The populations were 458 companies listed on the Stock Exchange of Thailand. The sample were at least 200 companies which enough to analyze by using structural equation modeling statistic. (Schumacker and Lomax, 2004) It were multi-stage random sampling. Every random sampling step was a convenient sampling. Target group were six employees per company. Convert data from individual level to organization level by mean.

**Collection data:** Sending questionnaires to 458 companies via mail (6 sets per company). Questionnaires returned 234 companies (1,076 sets) and can be used to analyze 217 companies (791 sets). Data collecting period was during January to June, 2014

**Measurement tool:** Six-rating scale questionnaires were developed. There are four parts in the questionnaires as follows; 1) Demographic characteristics include gender, age, education and position, 2) CSR questionnaire which is a measure of Maignan and Ferrell (2001), 3) OCB questionnaire which is a measure of Lin et al. (2010) and 4) OE questionnaire which is a measure of Zahra and LaTour (1987)

**Content validity and reliability:** Three experts had examined IOC. The IOC values were between 0.67-1.00 (> 0.50) which mean content validity. Conbach’s alpha coefficients were between 0.782-0.983 (> 0.70) which mean reliability (Nunnaly, 1978). Conbrach alpha coefficient were presented in table 1

**Normality distribution:** Check by skewness and kurtosis (Tabachnick and Fidell, 2007) within ± 3.00 (Kline, 2005). The Data found to be normal distribution with skewness value were between -1.157 to -0.243 and kurtoses were between 0.104 to 2.803.
**Data analyze:** For descriptive statistic: frequency, percentage, mean and standard deviation were used. For inferential statistic: structural equation modeling technique was used. CFA was used to test measurement model whether consistent with empirical data or not. Convergent validity were tested by t-value at significant level 0.05 (t-value > 1.96) (Holmes-Smith, 2001). Composite reliability were tested by calculation CR and AVE (CR > 0.6 ans AVE > 0.5 (Fornell and Larcker. 1981). For structural model, fit indices for testing model fit are as follows; \( \chi^2 / df \leq 5.00, \) RMSEA \( \leq 0.08, \) GFI \( \geq 0.90, \) CFI \( \geq 0.90 \) and NNFI \( \geq 0.90 \) (Hooper et al., 2008). Testing hypotheses and finding effect between each variable and R².

**Result**

**Demographic Data**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Amount</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>482</td>
<td>60.9</td>
</tr>
<tr>
<td>Male</td>
<td>309</td>
<td>39.1</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Below 31</td>
<td>259</td>
<td>32.7</td>
</tr>
<tr>
<td>31 - 40</td>
<td>320</td>
<td>40.5</td>
</tr>
<tr>
<td>41 – 50</td>
<td>163</td>
<td>20.6</td>
</tr>
<tr>
<td>Higher than 51</td>
<td>49</td>
<td>6.0</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Below Bachelor Degree</td>
<td>60</td>
<td>7.6</td>
</tr>
<tr>
<td>Bachelor Degree</td>
<td>503</td>
<td>63.6</td>
</tr>
<tr>
<td>Master Degree</td>
<td>271</td>
<td>28.7</td>
</tr>
<tr>
<td>Doctoral Degree</td>
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<td>0.1</td>
</tr>
<tr>
<td>Position</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff</td>
<td>447</td>
<td>56.5</td>
</tr>
<tr>
<td>Low-level Management</td>
<td>219</td>
<td>27.7</td>
</tr>
<tr>
<td>Middle-level Management</td>
<td>96</td>
<td>12.1</td>
</tr>
<tr>
<td>Top-level Management</td>
<td>29</td>
<td>3.7</td>
</tr>
</tbody>
</table>

Table 1: Description of the samples

From table 1, majorities gender were female (60.9 percent), age 31 to 40 years (40.5 percent), bachelor degree (63.6 percent) and working in staff level positions (56.5 percent)
Mean, SD, Level and Conbach’s Alpha Coefficient.

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Component / Variable</th>
<th>Mean (N = 217)</th>
<th>SD</th>
<th>Level</th>
<th>α (N = 40)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSRE</td>
<td>Economic Responsibility</td>
<td>4.64</td>
<td>0.62</td>
<td>High</td>
<td>0.897</td>
</tr>
<tr>
<td>CSRL</td>
<td>Legal Responsibility</td>
<td>4.71</td>
<td>0.65</td>
<td>High</td>
<td>0.947</td>
</tr>
<tr>
<td>CSRET</td>
<td>Ethical Responsibility</td>
<td>4.70</td>
<td>0.67</td>
<td>High</td>
<td>0.929</td>
</tr>
<tr>
<td>CSRD</td>
<td>Discretionary Responsibility</td>
<td>4.56</td>
<td>0.76</td>
<td>High</td>
<td>0.969</td>
</tr>
<tr>
<td>PCSR</td>
<td>Corporate Social Responsibility</td>
<td>4.65</td>
<td>0.58</td>
<td>High</td>
<td>0.981</td>
</tr>
<tr>
<td>OCBA</td>
<td>Altruism</td>
<td>4.66</td>
<td>0.62</td>
<td>High</td>
<td>0.919</td>
</tr>
<tr>
<td>OCBCON</td>
<td>Conscientiousness</td>
<td>4.39</td>
<td>0.58</td>
<td>High</td>
<td>0.921</td>
</tr>
<tr>
<td>OCBS</td>
<td>Sportmanship</td>
<td>4.61</td>
<td>0.70</td>
<td>High</td>
<td>0.782</td>
</tr>
<tr>
<td>OCBCOU</td>
<td>Courtesy</td>
<td>4.75</td>
<td>0.63</td>
<td>High</td>
<td>0.874</td>
</tr>
<tr>
<td>OCBCIV</td>
<td>Civic Virtue</td>
<td>4.71</td>
<td>0.59</td>
<td>High</td>
<td>0.960</td>
</tr>
<tr>
<td>OCB</td>
<td>Organizational Citizenship Behavior</td>
<td>4.63</td>
<td>0.48</td>
<td>High</td>
<td>0.958</td>
</tr>
<tr>
<td>OEE</td>
<td>Entrepreneurial Viability</td>
<td>4.75</td>
<td>0.63</td>
<td>High</td>
<td>0.983</td>
</tr>
<tr>
<td>OES</td>
<td>Satisfying the Needs of Publics</td>
<td>4.58</td>
<td>0.73</td>
<td>High</td>
<td>0.859</td>
</tr>
<tr>
<td>OEP</td>
<td>Profitability and Growth</td>
<td>4.78</td>
<td>0.73</td>
<td>High</td>
<td>0.959</td>
</tr>
<tr>
<td>OE</td>
<td>Organizational Effectiveness</td>
<td>4.70</td>
<td>0.62</td>
<td>High</td>
<td>0.961</td>
</tr>
</tbody>
</table>

Table 2: Mean, SD, Level and Conbach’s Alpha Coefficient

Remark: 1.00 – 2.67 = Low, 2.68 – 4.35 = Medium, 4.36 – 6.00 = High

From table 2, all components and variables score are in high level.

Correlation between Observe Variable

<table>
<thead>
<tr>
<th></th>
<th>CSRE</th>
<th>CSRL</th>
<th>CSRET</th>
<th>CSRD</th>
<th>OCBA</th>
<th>OCBS</th>
<th>OCBCOU</th>
<th>OCBCIV</th>
<th>OEE</th>
<th>OEP</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSRE</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CSRL</td>
<td>.645*</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CSRET</td>
<td>.656*</td>
<td>.693*</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CSRD</td>
<td>.636*</td>
<td>.555*</td>
<td>.697*</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OCBA</td>
<td>.306*</td>
<td>.444*</td>
<td>.357*</td>
<td>.215*</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OCBS</td>
<td>.236*</td>
<td>.386*</td>
<td>.298*</td>
<td>.173*</td>
<td>.268*</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OCBCOU</td>
<td>.353*</td>
<td>.530*</td>
<td>.412*</td>
<td>.293*</td>
<td>.532*</td>
<td>.454*</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OCBCIV</td>
<td>.339*</td>
<td>.500*</td>
<td>.486*</td>
<td>.376*</td>
<td>.478*</td>
<td>.396*</td>
<td>.706*</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OEE</td>
<td>.645*</td>
<td>.592*</td>
<td>.698*</td>
<td>.546*</td>
<td>.464*</td>
<td>.295*</td>
<td>.486*</td>
<td>.527*</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>OEP</td>
<td>.587*</td>
<td>.532*</td>
<td>.611*</td>
<td>.506*</td>
<td>.350*</td>
<td>.210*</td>
<td>.381*</td>
<td>.409*</td>
<td>.702*</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 3: Correlation Coefficients Metric between Observe Variable

Remark: ** = p < 0.01 (Significant at 0.01 level)

0.10-0.35 = Low, 0.36-0.50 = Medium, 0.51-0.69 = High and 0.70+ = Very High

From table 3, all observed variables correlate significantly in high level. (After remove OCBCON and OES due to insignificantly correlation)
**Correlation between Latent Variable**

<table>
<thead>
<tr>
<th>Latent Variable</th>
<th>PCSR</th>
<th>OCB</th>
<th>OE</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCSR</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OCB</td>
<td>0.619**</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>OE</td>
<td>0.873**</td>
<td>0.667**</td>
<td>1.000</td>
</tr>
</tbody>
</table>

Table 4: Correlation Coefficients Metric between Latent Variable

*Remark:* ** = p < 0.01 (Significant at 0.01 level)

0.10-0.35 = Low, 0.36-0.50 = Medium, 0.51-0.69 = High and 0.70+ = Very High

From table 4, all latent variables correlate significantly in high to very high level

**Measurement Model**

From the result of CFA found that hypothesized model consistent with empirical data. Fit indices are as follows: χ²/df = 2.40 (< 5.00) RMSEA = 0.077 (< 0.08) GFI = 0.936 (> 0.90) CFI = 0.980 (> 0.90) and NNFI = 0.972 (> 0.90). It demonstrates the construct validity. Standardized factor loading of each item should greater than 0.3 (Hair et al., 1998) and also significant at 0.05 level. Convergent validity consider from t-value at significant 0.05 level (t-value > 1.69) (Holmes-Smith, 2001). Composite validity consider from CR > 0.6 and AVE > 0.5 (Fornell and Larcker, 1981). R² should greater than 0.2 (Hopper et al., 2008)

Each item found significant at 0.01 level. All standardized factor loading were between 0.501-0.898 (> 0.3 that mean convergent validity). All latent variables have CR between 0.798-0.879 (> 0.6) and AVE between 0.507-0.708 (> 0.5) that mean composite reliability. R² were between 0.251-0.807 (> 0.2) as shown in table 5.

<table>
<thead>
<tr>
<th>Latent Validity</th>
<th>Composite Item</th>
<th>Standardized Factor Loading</th>
<th>t-value</th>
<th>R²</th>
<th>CR</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSR</td>
<td>CSRE</td>
<td>0.792</td>
<td>13.546**</td>
<td>0.627</td>
<td>0.879</td>
<td>0.647</td>
</tr>
<tr>
<td></td>
<td>CSRL</td>
<td>0.789</td>
<td>13.465**</td>
<td>0.622</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CSRET</td>
<td>0.877</td>
<td>15.859**</td>
<td>0.770</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CSRD</td>
<td>0.756</td>
<td>12.666**</td>
<td>0.571</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OCB</td>
<td>OCBA</td>
<td>0.615</td>
<td>9.373**</td>
<td>0.378</td>
<td>0.798</td>
<td>0.507</td>
</tr>
<tr>
<td></td>
<td>OCBS</td>
<td>0.501</td>
<td>7.355**</td>
<td>0.251</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>OCBCOU</td>
<td>0.850</td>
<td>14.332**</td>
<td>0.723</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>OCBCIV</td>
<td>0.824</td>
<td>13.720**</td>
<td>0.678</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OE</td>
<td>OEE</td>
<td>0.898</td>
<td>15.813**</td>
<td>0.807</td>
<td>0.828</td>
<td>0.708</td>
</tr>
<tr>
<td></td>
<td>OEP</td>
<td>0.781</td>
<td>13.079**</td>
<td>0.610</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5: Convergent Validity and Composite Validity

*Remark:* ** = p < 0.01, CR = Composite Reliability, AVE = Average Variance Extract

Standardized Factor Loading 0.10-0.35 = Low, 0.36-0.50 = Medium,

0.51-0.69 = High 0.70+ = Very High

R² 0.01-0.12 = Low, 0.13-0.25 = Medium, 0.26-0.48 = High, 0.49+ = Very High
Structural Model

From the result of SEM found that hypothesized model consistent with empirical data. Fit indices are as follows: $\chi^2/df = 2.40$ ($< 5.00$) RMSEA = 0.077 ($< 0.08$) GFI = 0.936 ($> 0.90$) CFI = 0.980 ($> 0.90$) and NNFI = 0.972 ($> 0.90$) as shown in figure 2.

![Figure 2: Structural Equation Modeling](image)

For hypothesis testing result, all hypotheses are accepted as shown in table 6.

<table>
<thead>
<tr>
<th>hypothesis</th>
<th>Path</th>
<th>Standardized Regression Coefficient</th>
<th>Interpretation</th>
<th>t-value</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>PCSR → OCB</td>
<td>0.621</td>
<td>Medium</td>
<td>7.245**</td>
<td>Accept</td>
</tr>
<tr>
<td>H2</td>
<td>PCSR → OE</td>
<td>0.748</td>
<td>Very High</td>
<td>5.931**</td>
<td>Accept</td>
</tr>
<tr>
<td>H3</td>
<td>OCB → OE</td>
<td>0.202</td>
<td>Low</td>
<td>2.730**</td>
<td>Accept</td>
</tr>
</tbody>
</table>

Table 6: Hypothesis Testing Result
Remark: ** p < 0.001
Std. Regression Coefficient 0.10-0.35 = Low, 0.36-0.50 = Medium,
0.51-0.69 = High and 0.70+ = Very High

For direct, indirect and total effect are shown in table 7

<table>
<thead>
<tr>
<th>Cause Variables</th>
<th>PCSR</th>
<th>OCB</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effect Variables</td>
<td>DE</td>
<td>IE</td>
<td>TE</td>
</tr>
<tr>
<td>OCB</td>
<td>0.621**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OE</td>
<td>0.748**</td>
<td>0.125**</td>
<td>0.873**</td>
</tr>
</tbody>
</table>

Table 7: Direct Effect (DE), Indirect Effect (IE) and Total Effect (TE)
Remark: ** p < 0.001
Standardized Regression Coefficient 0.10-0.35 = Low, 0.36-0.50 = Medium,
0.51-0.69 = High and 0.70+ = Very High
R² 0.01-0.12 = Low, 0.13-0.25 = Medium, 0.26-0.48 = High, 0.49+ = Very High
Discussion

According to the social exchange theory, CSR (economic, legal, ethical and philanthropic responsibility) has a direct positive influence on OE (entrepreneurial viability and profitability and growth). Because when employee perceives corporate social responsibility, organization can easily recruit and select potential employee to join and work with the organization (Turban and Greening, 1997). Employees who are satisfied at work, they will be encouraged and motivated to work and take pride in working with the organization and return back by dedicated higher levels of productivity. The cost of hiring and training new staff will be reduced due to employee will not resign. Consistent with the findings of Maignan and Ferrell (2001) who found that CSR has a direct positive impact on business performance, ROI, ROA and ability to make profits and growth.

According to the mechanism between social exchange theory and social identification in term of reciprocal exchange, CSR (economic, legal, ethical and philanthropic responsibility) has a direct positive influence on OCB (altruism, sportsmanship, courtesy and civic virtue) because when employee perceives social responsibility from the organization, employee will evaluate the things that they receive from the organization and pay back on common satisfaction (Gouldner, 1960) in term of acting OCB (Gond et al. 2010). Consistent with the findings of Hansen et al. (2011) and Evans (2006) who found that CSR has a direct effect on OCB.

OCB (altruism, sportsmanship, courtesy and civic virtue) has a direct positive influence on OE (entrepreneurial viability and profitability and growth). Because such OCB contributes to the effective use of resources to benefit the creativity and reduce the need to use scarce resource in maintenance work in the organization (Organ, 1988). OCB resulted supervisors can devote their time to participate in activities that are useful for planning, setting work schedule, analyzing and problem-solving organization problems more. OCB also helped colleagues with a powerful performance and enhance the efficiency and performance (Podsakoff et al, 1997). Consistent with the findings of Ahmadi (2011) who found a positive correlation between OCB and the ability of the organization.

OCB was influenced directly by CSR significantly. The variance was predicted with 38.6% in high level. OE were influenced directly by CSR and OCB and also influenced indirectly by CSR via OCB significantly. The variance was predicted with 78.37% in very high level.

Conclusion

The research results showed that CSR has positive direct impact on OCB and OE. OCB has positive direct impact on OE. Meanwhile, CSR has indirect impact on OE via OCB. The listed companies on the Stock Exchange of Thailand should do business with CSR concept by taking account on economic, legal, ethical and philanthropic responsibility. Then CSR will effect on employee extra role behavior or OCB by behave altruism, sportsmanship, courtesy and civic virtue. Consequently, organizational effectiveness in term of entrepreneurial viability and profitability and growth will be increased.

Suggestions for further Studies

It is advisable to study this model for each industry or organization in Thailand.
References


Abstract
In recent years, the decline of birth rates in countries around the world has led to the lower labor force participation, giving a significant impact to the industrial structure adjustment as well as the economic development. In 1990s, the educational market is growing rapidly in Taiwan. However, with the dropping of fertility rate and the school-age population, schools had experienced a shortage of enrollment, which was a daunting challenge to education industry and directly affected the supply and demand of human resources and the educational resources. Hence, this paper adopts the case study method by using 158 universities in Taiwan as the population and the number of students in the university as the statistic variables for the management performance. The period of calculation is 16 years in total, which begins from 2000 to 2015. The result of the research shows that the management performance of universities in Taiwan can be divided into five categories, which are “inverted V,” “sustained positive growth,” “sustained negative growth,” “positive growth,” and “stable flat.” This study takes the university with the highest positive growth from the category of “positive growth” as the research target, examining the key factors that influence the management performance. This research finds out that in 2010 when the number of students reached the lowest number of records in history, the principle of the university adopts the philosophy of environment in Feng Shui, I-Ching in Chinese culture to adjust the campus. Afterwards, the number of students had increased for five consecutive years from 2011 to 2015, and the number of students in 2015 even reached the highest in the history record. The result of this case study is not only a reference to school governance, but it also allows Western management scientific education to have more understandings towards the governance of I-Ching in Chinese culture.

Keywords: Chinese Culture · I-Ching Feng Shui · Performance · School Governance
Introduction

As the tide of globalization sweeps the whole world, to those who believe confidently in the notion of “the earth is round”, the world is now turning to “flat”. It fulfills the western proverb “the only thing that does not change is change itself”! The proverb is cliché but everlasting. In the Western scientific management theories, the well-known theories including the contingency theory of management, change management, or learning organization are widely appreciated by enterprises because they can cope with the challenges caused by rapid environmental changes with the theories, and proceed towards the future. As the growing of Chinese economy, global challenges and conflicts expand. How can enterprises in Europe and America find more new opportunities and re-adjust themselves to new economic developments nowadays? Maybe, it is time for the western society and entrepreneurs to study I-Ching-Feng-Shui of Chinese culture to be aware of changes, understand them and comprehend the philosophy of constant changes.

Overviewing the cultures of the four great ancient civilizations in the world, it is noticeable that only Chinese culture has a long history and remains unshakable. Fundamentally, it is because the philosophy of Chinese culture is rooted in I Ching. I Ching Xici mentions that:

Anciently, when Bao-xi had come to the rule of all under heaven, looking up, he contemplated the brilliant forms exhibited in the sky, and looking down he surveyed the patterns shown on the earth. He contemplated the ornamental appearances of birds and beasts and the (different) suitability of the soil. Near at hand, in his own person, he found things for consideration, and the same at a distance, in things in general. On this he devised the eight trigrams, to show fully the attributes of the spirit-like and intelligent (operations working secretly), and to classify the qualities of the myriads of things”.

Besides, it says:

The eight trigrams having been completed in their proper order, there were in each the (three) emblematic lines. They were then multiplied by a process of addition till the (six) component lines appeared. The strong line and the weak push themselves each into the place of the other, and hence the changes (of the diagrams) take place. The appended explanations attach to every form of them its character (of good or ill), and hence the movements (suggested by divination) are determined accordingly…Their changes, however varied, are according to the requirements of the time (when they take place)...By the same rule, heaven and earth, in their course, continually give forth (their lessons); the sun and moon continually emit their light; all the movements under the sky are constantly subject to this one and the same rule.

Again, it states ” the I was made on a principle of accordance with heaven and earth, and shows us therefore, without rent or confusion, the course (of things) in heaven and earth”. The Chinese people has
established the ways of heaven, earth and humans with their enlightened experiences from observing objects and phenomena. According to the ways of heaven, earth, and humans, people realize the connections and interactions of all objects, progression and development of all events, and the laws of “production and reproduction is so-called (the process of) change” and “the harmony between man and nature.

Contemporary I Ching Master Yi Rui Chang (Dharma name Hunyuan) considers I Ching to be the root of the whole Chinese culture; I Ching Bagua signifies the source of human life, in which Qian denotes heaven, Dui denotes marsh, Li denotes fire, Zhen denotes thunder, Xun denotes wind, Kan denotes water, Gen denotes mountain, and Kun denotes earth. Furthermore, the sixty-four gua represents an origin of human wisdom. Master Change also instructs “The Sutra of Gui Gu Immortal Master’s Heaven Virtues stated that nothing can be separated from Bagua…. Bagua is the truth, formless and intangible. It is an incredible law of heart for complicate human life. Bagua represents the driving force of life which contains basic elements for harmonizing all on the earth. It is the eight right paths”. Chunzhi Huang (2017) points out that I Ching of Chinese culture consists of sixty-four gua which contains the compositions and permutations of eight by eight trigrams. He also states that I Ching manifests philosophically itself in the active progression of creation and change, the emergence of opportunity and sequence, and the unity of heaven and human. Yiyuan Li (1999) pointed out that in the traditional Chinese concept, the Chinese consider the people, the universe and the supernaturalism altogether as the only one organic unity and pursue the systematic harmony of the relationship between people and people, others and oneself, people and nature, and people and super-nature. Therefore, I Ching illustrates the principles of simplicity, changes and constancy and elaborates the law of harmony in the great circle of nature and the universe. Thus, I Ching helps one other to establish harmonious and balanced relationships. Therefore, I Ching and Feng Shui of the Chinese culture, are the adjustment principles which are exactly the same and equal to each other.

The Sutra of I Ching Dharmachakra《易經大法輪真經》 states:

When there were heaven and earth, then afterwards all things were produced. What fills up (the space) between heaven and earth are (those) all things. Hence (Qian and Kun) are followed by Zhun. Zhun denotes filling up. Zhun is descriptive of things on their first production. When so produced, they are sure to be in an undeveloped condition. Hence Zhun is followed by Meng. Meng is descriptive of what is undeveloped,--the young of creatures and things. These in that state require to be nourished(Yang 養).

The Chinese character Yang(養) means education, cultivation and fostering. In The Analects (論語) Zi Lu (子路), it says “when the Master went to Wei, Zan You acted as driver of his carriage. The Master observed, “How numerous are the people!” You said, “Since they are thus numerous, what more shall be done for them?” “Enrich them,” was the reply. “And when they have been enriched, what more shall be done?” The Master said, “Teach them”. These statements point out the close relationships among population, economy and education. Especially, population is the most important groundwork for economic and educational developments. In the global...
environment with rapid changes, low fertility rate is common in developed countries and under-developing countries in East Asia. Low fertility rate not only has caused the decline and aging of the labor force but also will change the population structure, and have significant impacts on the industrial structure and economic development.

The early childhood industry bears the brunt of low fertility rate. Especially, the early childhood education industry has been affected directly and brought contagion effects. Japan, for instance, according to the statistics of World Bank, the fertility rate declined year by year, from 2.16 in 1971 to 1.26 in 2005. Later, it climbed to 1.42 in 2014 because of the gradual decline in fertility rate in Japan during the 34 years, from 1971 to 2005. Moreover, new universities have been widely founded since 1995. The number of universities was 565 in 1995 and rose to 649 in 2000. In 2010, the number of universities climbed to 778. In conclusion, low fertility rates and rapid growing number of universities in Japan have caused the universities unprecedented crises in student recruitment and operation. On June 6, 2009, Mie Chukyo University and Shinshiro Otani University in Nagoya, Japan, St. Thomas University of Osaka and Kobe University of Fashion and Design held an emergency press conference. The presidents of the three universities painfully announced that the operation of their university was in trouble and would stop recruiting students. In the recent years, similar to what happened in Japan, the fertility rate of Taiwan was down to 1.76 in 2000. In 2005, the rate was down to 1.57. Now, the total number of universities in Taiwan is 158 after merging and closing up. According to The World Factbook 2015, the Taiwanese fertility rate was 1.12, the 3rd lowest fertility rate in the world. only better than Singapore's 0.81 , the first place and Macao’s 0.94, the second place. On the other hand, the number of universities in Taiwan climbed from 121 in 1990, increased to 134 in 1995, and 164 in 2007. Likewise, facing the low fertility rate and over expansion of universities, what the 158 universities in Taiwan should do to cope with the problems in order to operate sustainably?

The Chinese firmly believe in the philosophy and thought of I Ching. Facing the declination of fertility rate and situated in a vehemently competitive environment, can the universities in Taiwan turn the tide by applying the great principles of I-Ching-Feng-Shui of Chinese culture? This study uses the case study method, discussing how the president of a university in this study, who encountered both internal and external difficulties, turned the tables and opened up a new dimension in the university performance by applying the principles of environmental harmony of I-Ching-Feng-Shui to their campus setting

**Literature Review**

**The lineage of I-Ching-Feng-Shui of Chinese culture**

The philosophical thought of Chinese culture is I Ching which is the top of Chinese cultural classics. It is well known that I Ching is derived from Zhou Yi written by Zhou Wen Wang ( Emporer Zhou Wen. Throughout 7400 years of the long Chinese cultural history, tracing back to its origin, what is the lineage of I Ching?

Yi Rui Chang (2016) stressed “Sage Fu Xi perceived the Primordial (Earlier Heaven Eight Guas), which pertained to the principles of harmony in nature…Four hundred years later, the knowledge was passed down to Nuwa Xuannu who comprehended and

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extended the knowledge into the Manifested (Later Heaven Eight Guas), Nine Places and Eight Guas (Jiugongbagua)”. Chang also mentioned “Fu Xi’s Primordial and Nuwa’s Manifested, respectively representing “essence” and “application”, were combined and passed down to Chinese Three Ancestors, Huangdi’s Lianshan, Yandi’s Guizang, and Chiyou’s Jiugong. The knowledge of “Lianshan and Guizang Yi” is all about mountains and rivers, a natural phenomenon. All things grow on the earth and change constantly. Nature is manifested by mountains, rivers, and earth, therefore, neither arising nor ceasing. That is the mystery of Feng-Shui studies. “Nuwa” culture is part of Kun Lun civilization. As to the culture of Nine places passed down by Nuwa, what is it exactly? YiRui Chang clearly described it in his book. Jiutian Xuannu “Nuwa” realized the movement patterns of the nine planets and invented Nine Places and Eight Guas (Jiugongbagua). She was viewed as the founder of mysterious emptiness and nine planets”. Chang says again” Huandi and Yandi inherited the Manifested (Later Heaven Eight Guas) from Fu Xi which was the Feng Shui study of mountains, river, and earth, belonging to the way of Lianshan Gui Cang representing ‘essence’. Ancestor Chiyou inherited Later Heaven Nine Places and Eight Guas from Jiutian Xuannu which described Three Yuan and Nine Yun, and the movement patterns of the nine planets, representing ‘application’… Later, it was passed down to Sage Wang Chan Lao Chu and developed into the culture of Guigu which was originally from the culture of Three Sovereigns and Five Emperors’ Primordial and Manifested (Early and Later Heaven Eight Gua) and possessed the quality of both the essence and application”. The discussion explained the lineage of I-Ching-Feng-Shui of Chinese culture. It was originated from the principles of harmony of mountains and rivers in nature, and the motion of the universe. It explained the truth of “production and reproduction is so-called (the process of) change” and “a unity of heaven and human”.

The mystery of I-Ching-Feng-Shui of Chinese culture

The vital elements for a person are sun, air and water. The three-elements actually means wind (Feng) and water (Shui). From the aspect of meteorology, wind is the motion of air; the air motion is related temperature difference. Sunshine is the source of heat and temperature. Therefore, Grand Master Hunyuan instructed “a person may not believe in Feng-Shui, but he actually has gotten benefits from it. Indeed, this is a fact worthy of exploring.”

How to define ‘Feng Shui’ exactly? Zen Master Hunyuan (2016) considers wind and water the root of harmony of the universe. Wind and water respectively represent “air” and “the root of life in nature”, as if blood and breath in human body. From a biological point of view, breath is a process of inhaling and exhaling air taking place in human lungs. The air in the flow of human respiratory system is wind. In addition, the body’s blood accounts for about one-thirteenth of body weight; 55% of the blood is plasma, and about 90% of the plasma is water. As mentioned in Feng-Shui Jen Ching《風水真經》, Feng shui can nourish all things and human beings. All things without Feng Shu must be dead. People’s breath is the wind; their blood is water”. This is quite in line with the idea proposed by Zen Master Hunyuan that the study of feng shui is scientific, rational and intellectual.

Zen Master Hunyuan points out that no matter in Feng-Shui Studies, environmental science or science, there are always front, back, left, right, above, and below
dimensions, and the central point. The seven elements, the dimensions and central point, are the basic conditions of Feng-Shui. Chinese 5000 years ago, Fu Xi Shi realized the changing orbit of all living things’ birth and death in the universe and used hexagrams to explain the adjustment principles concerning the treatment of Yin and Yang in the universe. That is ‘XianTian BaGua’ (The Early Heaven Trigram), the true face of the university. The harmony of the universe follows the Primordial, the reconciliation of Qian, Dui, Li, Zhen, Xun, Kan, Gen, and Kun. In Feng-Shui Jen Ching 《風水真經》, it says “human beings and the way of I (change) is a unity. The Gua Yaus of I Dao match human body parts, Qian corresponding to head, Kun abdomen, Zhen foot, Xun hip, Kan ear, Li eye, Gen hand, and Dui tongue. Buddha has a dharma appearance and Bagua inside His body. As suggested in Feng-Shui Jen Ching 《風水真經》, a house has appearance as if a person does. All sentient beings have appearances as well. Appearance is generated from heart. What is heart? Heart is the instinct of awareness, the balanced point of a middle way. A house has a heart as if Buddhas and people do. If humans and objects deviate from their heart (center), then they will lose balance. Similarly, the good and bad fortunes of the appearance of a house are generated from the heart of the house. This indicates that the principles of reconciliation emphasized in Feng-Shui of Chinese culture are also a middle way and applicable to the evolution of all. The philosophy of environmental adjustment of I Ching Feng Shui of Chinese culture is closely associated with the happiness of human beings.

In Feng-Shui Jen Ching 《風水真經》, it is stated “Feng-Shui is the ethereal law of Buddhism; wind is emptiness, and water is form. The emptiness in terms of thought is positive, bright, and sophisticated wisdom; the form in terms of behavior means materials, practice, cultivation, and compassion”. To humans, breath is wind, and blood is water. If a person can breathe well, then he will have a clear mind to bring into full play his potentials and wisdom. If a person’s blood is sufficient and flows smoothly, then he will have a strong internal environment and immune system in his body. As a result, he can provide service and have great contribution to create greater well-being of mankind. Education is the foundation of the country and also a hundred-year plan. Zen Master Hunyuan (2006) argues that the implementation of school policies requires the cooperation of faculty, staff and students. That is of course related to the operator’s policies, ideas and directions as well. However, there might be disagreements or other factors of imparity which can be represented and explained by the image of Tai Chi diagram, "Yang embedded in Yin, Yin embedded in Yang.” How to inspire Yang embedded in Yin (the eliminating nature of Amitabha in bad students) and eliminate Yin embedded in Yang (the dark side on good students’ mind) is the goal of education. It is also a matter that everyone should introspect every day. Meanwhile, Zen Master Hunyuan points out that according to the principles of Feng Shui, if the White Tiger part is higher than Blue Dragon part in a campus layout, then school's internal personnel will have inevitable fighting and outsiders will often interfere with school administration. The students will have bloodshot accidents more often. Thus, it would be more difficult to guide badly behaved students. That is the struggle of education, too.

To sum up, if environmental arrangements of individuals or organizations can meet the harmonic principles of I-Ching-Feng-Shui and follow the movement patterns of the universe as in the Primordial, then everyone will be healthy and safe, and live a prosperous and contented life. That confirms a maxim handed down from the Chinese
sages and ancient ancestors: “those who follow the heaven’s law will succeed; those who go against it will perish”.

The basic conditions of Feng Shui studies on the front, back, left and right sides are as follows:

- **Qian (乾 ☦):** Due south, corresponding to the first part of human body, it is brain, Yang. In Feng Shui, it is the direction of ‘Xuanwu’ (Tortoise).
- **Li (離 ☢):** Due east, corresponding to the human part, it is the right hand. In Feng Shui, it is the direction of ‘Baihu’ (White Tiger), fire.
- **Kan (坎 ☤):** Due west, corresponding to the human part, it is the left hand. In Feng Shui, it is the direction of ‘Qing Long’ (Blue Dragon).
- **Kun (坤 ☷):** Due front side, corresponding to the human part, it is legs. In Feng Shui, it is the direction of ‘Zhuque’ (rosefinch).

**Related studies on the university’s performance impacted by the philosophy of environment adjustment of I-Ching Feng-Shui of Chinese culture**

Relevant studies of the relationship of the philosophy of I Ching Feng Shui of Chinese culture and performance are mostly limited to Eastern studies or publication. Most research methods or records are conducted in terms of case type. Brief explanations are as follow.

In Chang’s research in 2012, he investigated a car dealership which had 24 sales and service branches. From 2008 to 2011 the environmental arrangements of four branches with poor performance were adjusted to comply with the principles of Feng-Shui. The research found out that the monthly management indicators, compared to them in the same period, showed that the numbers of employee’s leave, new car sales and potential customers’ visits, and the revenues of maintenance all had been improved after their environment were rearranged.

Chen & Li (2015) studied a large-scale steel factory which was founded in 1976 and were faced with predicaments of foreclosure auction and managerial right transfer in 2003. The new management team applied the principles of adjustment of I Ching Feng Shui of Chinese culture to re-plan the layout of their gate and factory equipment in the process of reorganization. According to the research findings, 12 years after the environmental adjustment, the factory had its capital growth of 8.72 times, the annual turnover growth of 3.68 times and the number of employees rose 4.44 times. The factory has transformed successfully into a competitive enterprise with growing business momentum.

Chen & Li (2015) conducted a research to study a biotech listed company founded in 2004. In 2010 its headquarter was planned and constructed according to the philosophy of environmental adjustment of I-Ching-Feng-Shui. The study compared the operating performance from 2012 to 2014, and found that the average annual revenue growth rate was 15.76%, the average annual profit rate was 15.52%, the average annual rate of return on assets was 12.63%, and the average annual return on equity was 20.7%.
In conclusion, the philosophy of environmental adjustment of I Ching Feng Shui of Chinese culture has brought improvement on organizational operation performance. If a business operates stably, then their employees will have a greater sense of job security. Thus, it indirectly contributes to social stability.

**Research method**

The aim of this study is to explore the influence of the philosophy of environmental adjustment of I-Ching-Feng-Shui of Chinese culture on university’s operating performance. The research period was carried out in two phases. First, the quantitative analysis was applied to analyze the types of university’s operating performance in Taiwan from 2000 to 2015. Then, the case study method including in-depth interviews and documents collection was used to analyze which principles of Feng-Shui impacted the operating performance of the case and find out what the improvements are after the case applied the Feng-Shui principles to its campus setting.

**Research finding**

**Statistical analysis on the university’s operation performance in Taiwan**

Over the past two decades, with the opening up and growth of the national economy and the improvement of the life quality of the people, the demand for higher education in Taiwan has been increasing. The government adopted an open and pluralistic policy to promote the development of higher education. Reviewing the development of higher education in Taiwan, the number of universities in Taiwan’s higher education was discussed in three stages by Syu, Sie & Chen (2015). Stage one was the stage of martial law lifting from 1985 to 1995. Prior to 1986, the number of university schools was 105 and gradually grew to 134 in 1995. Secondly, it was the stage of university’s upgrading and expansion from 1996 to 2007. The number of universities from 1996 to 2007 increased to 137 and 164 respectively at this stage. The third stage was the stage of strict control from 2008 till now. After some universities were merged and closed, the number has been down to 158.

Secondly, according to the annual statistics of student enrollment announced by the Ministry of Education in Taiwan (as shown in figure 1), in 1992 and 1995, the total number of university students in Taiwan were 652,162 and 751,347 respectively, grew yearly to 1,092,102 in 2000, and again grew to 1,326,029 in 2007. The number of students reached the peak, totally 1,355,290 students in 2012. But, in 2015, it was down to 1,332,445 students. From the data shown in Figure 1, the overall number of students in Taiwan since 2013 declined for three consecutive years. The future competition in the higher education industry is even more severe.
Finally, this study employed the university student enrollment as a measure of operation performance. The study was conducted in 158 universities in Taiwan in 2015, and the statistical base period for data collection was from 2000 to 2015. According to the results of statistical analysis, the performance of universities in Taiwan can be categorized into five types, namely “inverted V”, “sustained positive growth”, “sustained negative growth”, “positive growth” and “stable flat”.

The basic information analysis of the case

The case studied in this research is a university founded in March 1990 and has been operated for 28 years. Currently, the university has 11,891 students in 2015. This study summarized the number of students studying in the official website of the Ministry of Education of Taiwan (Figure 2). In this study, the statistical analysis was divided into three phases. The first phase was the growth period, since the university was founded till 2001. Due to the number of student enrollment of different academic programs are approved gradually. During the first phase, the number of students continuously grew and climbed up to 11,150. The second phase was the regression period, from 2002 to 2010. The number of students continued to fall to 9,779. During 9 year, the number of students decreased by 1,371. The phase three was rejuvenation period, from 2011 to 2015. The number climbed up to 11,891 from the bottom of 9,779 students. The number of students has been growing positively for five consecutive years, and has set the highest value of the number of students since the university was founded. Corresponding to the comparison of the number of the overall university students in the same period in Taiwan, the positive V curve of the case’s student number during the 2nd and 3rd phases is opposite to the reverse inverted V curve of the overall student number in Taiwan. The correspondence is worthy of further exploration.
The case’s application of the philosophy of environment adjustment of I Ching Feng Shui of Chinese Culture

The case’s application of the philosophy of environment adjustment of I Ching Feng Shui of Chinese Culture are divided into three parts. First of all, it explains the environmental analysis of the case before the application. Secondly, it is about the president’s statement of principles. Moreover, the connotation of the case’s application of the philosophy will be elaborated. Finally, it explains the analysis of operation performance in terms of the case’s domestic and international student enrolment.

The environmental analysis of the case before the application

The campus size of the case is 30.81 hectares, which is located at the western foothills of Mountain Bagua in central Taiwan. The terrain of the campus is ‘low front and rear high’ which will lead to the leakage of chi (氣) easily and therefore cannot accumulate wind and Chi and will affect the financial performance of the case. The campus of the case is surrounded by a high depression terrain. According to the Feng Shui formula described in a book published by Zen Master Huayuan (2006), “Heavenly eagle opens up its wings flying over the ocean, mighty like a fierce tiger. Pity! Closing up its wings powerlessly and fall disastrously.” In the Feng Shui Book, Zen Master Hunyuan explains “thoroughly that the exterior of the building looks like a golden dragon chair, well-balanced with a mountain behind, beautiful with sands on both the right and left sides, bright with a low field in front”. But, a house with a terrain of depression would form the pattern of Gua Yang (isolated Yang). The geographical environment of Gua Yang pattern is presented with mountains and canyons on the right and left sides, no sunshine but moisture in the terrain of depression. The descendants of the residents in a house with the Gua Yang pattern will gradually become less and less and finally die sonless. The fortune of the family will finally dissipate. If this environmental pattern cannot be broken, then it is best to migrate to other environments for bless, or to fill the depression and rebuild the building.
Finally, there is a short house in front of the entrance of the university. That forms the terrain of “pearl gag”, the pattern of aggressive air (Sha qi 煞氣) which means the block of air ventilation and spoken words.

The case’s presidents' statement of principles

The case appointed its fifth president in October 2007. Two university presidents took office during the 27 months before the appointment of the fifth president. The frequent replacement of the president has a great impact on the management and educational policies of a university. Moreover, other factors, such as the MOE’s promotion of the university evaluation system, the competition of newly-founded universities and low birthrate in Taiwan, etc make the management of a university more difficult. Therefore, how to stabilize the university, complete the infrastructure, achieve the successive mission of the university, and finally to have a sustainable development is the most important task and mission to the fifth president of the university. The fifth university president firmly believes the philosophy of environment adjustment of I Ching Feng Shui of Chinese culture and has applied it to the campus plan.

The connotation of the case’s application of the philosophy of adjustment of Feng Shui

The term of the fifth president of the case was a total of three years, from 2007 to 2010. During this period, in addition to diligently promoting the university affairs, the president was committed to the constant improvement on the campus environment including the campus security, campus landscaping and landscaping of installation art, etc. The campus provides the faculty, staff and students a comfortable learning environment. This paper lists three important principles of adjustment of Feng Shui as follows:

First, most of the case’s campus buildings are constructed by elevating the foundation first, which can improve the effects of the scattering of descendants and familial exterminations caused by the environment pattern of ‘Gua Yang’

Secondly, three flags were put up on the left side of the university entrance, the terrain of Qing Long’(Blue dragon), to deal with the environmental pattern of ‘pearl gag’ which is formed due to the short house right in front of the entrance of the university. The fluttering university flags can dissolve the ShaQi (aggressive air) of ‘pearl gag’ in front of the entrance.

Finally, in order to improve the case’s leakage situation formed by the campus environment of ‘front low rear high’, a pond of gourd shape was built on the left ‘Qing Long’ side of the entrance to let the meandering river along the left side of the mountain on the rear campus flow into the gourd pond to save Chi, stopping the leakage of Chi. Meanwhile, several ponds were set up on campus to gather trickles into the ponds and greeneries were planted to form screens on the downhill paths to prevent ‘the leakage of chi’. The ponds, the greeneries, and the gourd-shaped pond can beautify the campus as installation art and can play a function of preventing Chi leakage and saving Chi according to the principle of environment adjustment as well.
In the mentioned-above principles of environment adjustment, the case built the gourd shaped pond to lead the leakage Chi (air) caused by the terrain of ‘front low rear high’ on campus to flow along the left river into the pond. The three fluttering university flags erecting on the top left of the entrance are for dissolving aggressive chi of ‘pearl gag’. These two applications are the most important principles of environment adjustment of I Ching Feng Shui of Chinese culture.

**The analysis of operation performance of the case**

The case was founded in March 1990. The number of enrolled domestic students began to fall in 2002, falling to a historical low of 9,779 in 2010, a decrease of 1,371 students totally in nine years. In the same period, the number of overseas students remained at about 30. In 2010, the number of domestic students rose from the bottom of 9,779 to 11,891, and the number of overseas students grew rapidly from 37 to 497 for five consecutive years, setting the highest value of the number of total students since the establishment of the case. Comparing to the number of students of the overall universities in Taiwan in the same period, the development of the case showed a very different trend of development.

![Figure 3 Statistics on the number of international students enrolled in the case from 2005 to 2015](image-url)
Figure 4 Statistics on the number of international students enrolled in the case from 2005 to 2015

Conclusion

This paper takes a higher education institute in Taiwan as a case to discuss the competition of higher education in Taiwan and the environmental impact of low fertility rate. The paper explored how the case applied the philosophy of environment adjustment of I-Ching Feng-Shui of Chinese culture to reconstruct the campus, and then turned the tide with the improvement of management performance and opened a new prospect. This study found that the philosophy of environment adjustment of I-Ching Feng-Shui of Chinese culture is concerning the concept of balance, all things having Yin and Yang, changes and evolutions. The philosophy pertains to the concept of ‘changes mean production and reproduction’ as well. The philosophy of environment adjustment of I-Ching Feng-Shui of Chinese culture considers all creatures and objects to be equal and organic. It corresponds to ‘the unity of nature and man’. The natural environment of Feng Shui of the case in this study reflects the correspondence between its operation achievement in terms of the number of overall students and the vitality of all things of nature. Consequently, on the case’s campus, the environmental leakage of ‘front low rear high’ and the aggressive air (Shachi) of ‘pearl gag’ were both corresponding to the low energy of all things of nature. The campus environment with improper Feng Shui patterns reflected the university’s worst performance of management in year 2010 when the number of the enrolled students was the lowest. After the case adjusted its campus environment based the concept of balance and equality in the philosophy of environment adjustment of I-Ching Feng-Shui of Chinese culture from 2011 to 2015, the number of domestic and overseas students grew for five consecutive years, and the number of total students in the year of 2015 reached the peak of historical records.

The results of this case study can not only be used as a reference for school governance, but also provides the science of Western management a better understanding of the management of I Ching of Chinese culture.
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Applying I Ching’s Life-Gua of Chinese Culture to Human Resource Management Strategy

Chen-Mei Li, Weixin Shengjiao College, Taiwan
Li-Yueh Chen, Weixin Shengjiao College, Taiwan

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Abstract
Chinese culture is one of the four ancient civilizations of the world, which is still greatly valued today. Its foundation of philosophy lies in the I-Ching, which elaborates the principles of nature of the universe and the life contained within it. While human resources management is a dynamic and interactive process, in the rise of China economy, it is interesting and thought-provoking to investigate the topic on how to apply I-Ching’s “life-gua,” a law of harmony, to interpret the strategy of human resources management in order to enhance the value of human resources in corporations. In this context, this study applies I-Ching’s “life-gua” to interpret two component factors of human resources management strategy and four different types of human resources development strategy. The variable in the research is “life-gua,” which is a trigram of arrangement formed by the year, month, date, and time of the person’s birth, with the vast amount of human resources information contained within it. The research variables of human resource management strategy include two component factors, which are employees’ working motivation and ability, and four types of human resource management strategies, which are development, stimulation, enhancement, and transference. The study combines Eastern philosophy of I-Ching’s “life-gua” and Western scientific strategy of human resources management in an attempt to promote the practical appliance in global human resources management for international corporations.

Keywords: Chinese Culture, Life-Gua, Human Resources Management Strategy
Introduction

Chinese culture is well-established and remains unshakable. Fundamentally, it is because the philosophy of Chinese culture is rooted in I Ching. The Chinese people have developed the ways of heaven, earth and human with their enlightened experiences from observing objects and phenomena. According to the ways of heaven, earth, and human, human beings realize the connections and interactions among all objects, progression and development of all things, the laws of ‘production and reproduction is so-called (the process of) change’ and ‘a unity of heaven and human’.

Contemporarily, the Mater of I Ching study in Taiwan, Mr. Yi Rui Chang (Dharma name, Zen Master Hunyuan), has carried forward Chinese culture orthodoxy all his life and founded I Ching University. Zen Master Hunyuan views I Ching Bagua as the source of human life, in which Qian denotes heaven, Dui denotes marsh, Li denotes fire, Zhen denotes thunder, Xun denotes wind, Kan denotes water, Gen denotes mountain, and Kun denotes water. In addition, he believes that sixty-four Gua symbolizes the origin of human wisdom. Therefore, I Ching is the origin of Chinese culture. It elaborates the harmonic principle of adjustment of endless development in nature and the universe. I Ching also explains that the universal harmony follows the Primordial (先天八卦) pertaining to the reconciliation of Qian, Dui, Li, Zhen, Xun, Kan, Gen, and Kun to establish harmonic and balanced relationships of each other. Therefore, the connotations of I Ching include the principles of ‘simple’, ‘change’ and ‘constant’. The Chinese people comprehends the principles of ‘production and reproduction is what is called (the process of) change’ and ‘a unity of nature and men’ by following the law of harmony among mountains, rivers and earth in nature and the movement of the universe.

A man is the most important asset to an organization and the key factor of competitiveness. However, with the impact of global economic integration, the rise of China's economy, the rapid development of information technology, and changes in labor structure, how enterprises cope with the challenges caused by the environment of human resource management to obtain valuable human resources and to maintain organizational competitiveness is an important issue for them today.

Human resource management means all the processes and activities of management of people within an organization, involving acquisition management, development management, compensation management and maintenance management. Men are the core of the processes and activities of management. According to employees’ abilities and willingness, manpower can be divided into four types -- solid performers, underutilizers, misdirected effort and deadwood. Moreover, four different types of human resource management strategy are developed. However, how can employers understand their employees’ abilities and willingness precisely? In western management science, the designs of performance appraisal system and scale measurement are often applied to understand employees’ abilities and willingness, and the relevant information. Meanwhile, in order to cope with international development, more and more Western management science researches focus on the issue of cross-culture, discussing cultural differences between East and West. Hofstede (2001) claims that the differences on four primary dimensions in national cultures include power distance (PDI), individualism (IDV), uncertainty avoidance (UAI) and masculinity (MAS). However, as the rise of Eastern economy, the
philosophy of I Ching of Chinese culture is gradually valued by Western scholars of management. How to apply I Ching of Chinese culture to enterprise management for effective operation of human resource management is a noteworthy research orientation now. Therefore, this study will use I Ching’s life-gua of Chinese culture to interpret the management of human resources and provide Western management science a new direction to promote East-West cultural integration.

The lineage of I-Ching-Feng-Shui of Chinese culture

Chinese culture has a long history more than 7,400 years. What is the root of Chinese cultural lineage? According to the publication of Zen Master Hunyuan (2016), it states “Sage Fu Xi perceived the Primordial (Earlier Heaven Eight Guas), which pertained to the principles of harmony in natur… Four hundred years later, the knowledge was passed down to Nuwa Xuannu who comprehended and extended the knowledge into the Manifested (Later Heaven Eight Guas), Nine Places and Eight Guas (Jiugongbagua’). Master Hunyuan also mentioned “Fu Xi’s Primordial and Nuwa’s Manifested, respectively representing ‘essence’ and ‘application’, were combined and passed down to Chinese Three Ancestors, Huangdi’s Lianshan, Yandi’s Guizang, and Chiyou’s Jiugong. The knowledge of “Lianshan and Guizang Yi” symbolizing ‘essence’ is all about mountains and rivers, natural phenomena. Ancestor Chiyou inherited Later Heaven Eight Guas, Nine Places and Eight Guas, from Jiutian Xuannu which was developed into Three Yuan and Nine Yun. It was about the movement patterns of the nine planets and symbolized ‘application’. Later, Guigu culture which originated from Earlier and Later Heave Eight Guas of Three Sovereigns and Five Emperors and from Sage Wang Chan Lao Chu has both the qualities of essence and application”.

Chinese sage in the celestial realm of Taichi, Wang Chan Lao Chu who styled himself as Guiguzi in the Warring States period of China had many famous disciples including Strategists Su, Zhang Yi, military strategist Sun Bin, Pang Juan, Japanese immortal Xu Fu, the elixir Mao Meng, orator Mao Sui, etc. Guiguzi’s wisdom inherited from Huangdi (Yellow Emperor) culture embraces the present science and humanities, education and so on. In 1982, Wang Chan Lao Chu and the patriarch of Weixin Shengjiao, Zen Master Hunyuan (founder of I Ching University) were unified in terms of heaven and human (this is a kind of religious mysticism). Afterwards, Wang Chan Lao Chu passed the heart method of I Ching Feng Shui of Chinese culture to Zen Master Hunyuan.

I Ching’s life-gua of Chinese culture which contains six Yaos, similar to Earth latitude and longitude, was drawn by Zen Master Hunyuan according to an image of Taichi appearing on his mind while Wang Chan Lao Chu and Zen Master Hunyuan were unified. Meanwhile, in the image of Taichi, there were a white bright sun and an illustration of the moon. At this moment, a four verse poem emerged from Zen Master Hunyuan’s mind: ‘Yin and Yang, Sun and Moon of longevity. Pity the rules of heaven are hard to know. There is a saint, Guiguzi. The world will certainly be at peace’. The vision made Zen Master Hunyuan began to study its meditative meaning. Wang Chan Lao Chu taught Zen Master Hunyuan: “Zen Master” is a master who enlightens, meditates, and calms his mind, and then develops a great law involving various clever methods”. Zen Master mediated Wang Chan Lao Chu’s teachings and finally developed I Ching’s life-gua of Chinese culture. In July 2003, Zen Master Hunyuan
began to lecture on I Ching’s life-gua in Chan Chi Shan Hsien Fo Temple located in Nantou County, Taiwan. The lectures were assembled into books.

The heavenly secret of I Ching’s life-gua of Chinese culture

Zen Master Hunyuan believes that I Ching will lead us to a successful road. What determines a person's life are one-third of destiny (Ming 命), one-third of hard working and one-third of Feng Shui, of which one-third of the destiny dominates a person's whole life and in fact is more important than Feng Shui. However, what is a destiny? Zen Master Hun Yuan considers that a destiny is formed life after life. A person's destiny consists of karma in his past lives. The destiny cannot be changed. Therefore, Zen Master Hunyuan stated: “As to the destiny, there is no destiny to be read, and no destiny to be forecasted. It is nothing but karma”.

According to I Ching ‘Life-Gua Chanji Chanjie’(Meditative secret and interpretation of Life-Gua 命卦禪機禪解) which Zen Master Hunyuan pondered, he believes that I Ching’s life-gua of Chinese culture is to help a person understand himself, realize causes and conditions in his past lives, improve himself and overcome himself. The life-gua of a person is an unchangeable law. But, if the factors of Feng Shui and hardworking are added to the unchangeable law, then a slight influence might occur. Furthermore, I Ching’s life-gua of Chinese culture also teaches people how to behave and cultivate themselves.

This study uses I Ching ‘Life-Guas Chanji Chanjie’(Meditative secret and interpretation of Life-Guas) developed by Zen Master Hunyuan as a reference, brief excerpts of the arrangement principles are as follow:

The so-called life-gua is arranged according to a person’s birth year, month, day, and hour. Birth ‘day’ represents Yang, therefore arranged in the up position of ‘wai-gua’(outer-gua). Birth ‘month’ represents turbid air of Yin, arranged in the down position of ‘nei-gua’(inner-gua). According to the arrangement of a person’s birth time, each of the first six Yaos of life-gua represents a decade.

A person's birth ‘hour’ represents the change at the moment, corresponding to the constant changes of ‘day’, ‘month’ and ‘hour’ during 24 hours. The birth ‘hour’ makes a cameo appearance in the manifestation of a divination arranged according to ‘day’ and ‘month’, guest starring as a peacemaker between ‘day’ and ‘month’ who represents a variety of good and bad lucks in line with karma.

The ‘hour’ when a person was born symbolizes a variable of the moment and plays a role of ‘dong-yao’ in his life-gua arrangement because there must be a contact point when two objects collide. Overlapped light rays will have a contact point, too. Likewise, the collision of ‘wai-gua’ and ‘nei-gua’ will have a contact point, an extremely short moment. That is ‘hour’. A person’s birth year is very important in his life-gua and transcends the domination of the solar galaxy. It is a controller of a person’s total energy and represents his benefactor. The heavenly secret derived from a life-gua, the arrangement of birth time, is so-called ‘ming’, habits. Everyone has their own habits, life styles and customs. I Ching’s life-gua reveals the insight of heaven, earth, time and affair in addition to ‘ming’. What is ‘heaven’?
contains natural blessing (Yang) and disaster (Yin). Understanding ‘earth’ means to realize our position. Understanding ‘affair’ means to realize time. Every change of each Yao in life-gua inspires people to understand their karma. If a person can understand another’s character, they can co-habitat. Understanding character means understand self’s or other’s habits, essences and capability. Then, people will get along well.

The meditative secret of I Ching’s life-gua of Chinese culture

Zen Master Hunyuan(2006) thinks the heavenly secret is different from the meditative secret. The heavenly secret lasts forever. The meditative secret tells how an individual goes beyond the law of ‘unchanging’ and turns it into the law of ‘changing’ and eventually transforms himself into a practitioner of mindfulness and becomes the master of himself. The meditative secret is part of nature. A being lives in a nature. How a person lives in harmony with nature and transcends nature, which is the meditative secret.

Zen Master Hunyuan claims that the abstruseness of unchanging of the heavenly secret is called ‘cause and effect’ as well. The heavenly secret originally does not involve life. It contains the meditative secret which is alive and not empty. The meditative secret is a concrete interaction and harmonic. The meditative interpretation of I Ching’s life-gua is to change lucks. Since destiny is an unchangeable fact, what we can do is to practice according to everyone’s ‘Dong Yao’ of life-gua to change lucks. Such transform of mindset is the true meaning of meditation.

Therefore, Zen Master Hunyuan thinks that using I Ching to understand life-gua in Chinese culture can help us understand our mind at the moment, our energy and relationships with others, and adjust mutual relations. When we understand a person’s character and habits, we will be able to know how to give him hopes, encourage him and inspire his confidence. This confirms the sayings ‘everyone can do something good’ and ‘know thyself, ever-victorious’. The victory lays on mutual understanding, caring and cherishing, not blaming.

The application of I Ching’s life-gua of Chinese culture to human resource management strategy

In the treacherous business environment, companies rely heavily on the strategic management of human resources in Western management science. Therefore, this study divides manpower into four types according staff’s capacity and willingness to work:

(A) solid performer : High ability and motivation; managers should provide development opportunities.
(B) underutilizer : High ability but lack motivation; managers should focus on interpersonal abilities.
(C) misdirected effort : Lack of ability but high motivation; managers should focus on training.
(D) deadwood : Low ability and motivation; managerial action, outplacement, demotion and firing.
Four human resource management strategies have been developed in corresponding to the types of staff:

(A) Development strategy: including future career development, positive incentives and training
(B) Encouragement strategy: through the incentive strategy to enhance their willingness.
(C) Enhancement strategy: through enhancement strategy to enhance their abilities.
(D) Transfer strategy measures: including manpower adjustment, leave management, disciplinary management and counseling interviews

Human resource management is to achieve strategic goals with the abilities and actions required to establish an organization of employees through the design and implementation of human resource management systems, and human resource policies and activities. Therefore, the strategies of human resource management pertains to how to help the employees to understand themselves, realize the causes and conditions in their past lives, improve themselves, overcome their shortcomings, and finally sublimate their lives. Similarly, the strategies allow an organization to understand the impacts of its staff’s behavior on the practice of human resource management. For instance, in order to improve manpower, an organization can select and cultivate the employees they need through recruitment, selection, and training. For enhancing employee willingness to work, an organization can have plans for job enrichment and enlargement, and establish its promotion and reward systems. In terms of working environment, it can strengthen its leadership styles, enterprise culture, etc. to create a good cultural environment, and then shape itself into a high performance or effective and healthy organization. These all signify the true meaning of human resource management strategy.

The core of human resource management is ‘men’. The root of Chinese culture lays in I Ching. What I Ching described is the harmony law of adjustment existing in nature and the universe. Therefore, this study found the heavenly secret and meditative secret in I Ching’s life-gua could be derived from the arrangement of an employee’s birth month. The life-Gua can tell what ‘shiyao’(世爻) is. A person’s birth year discloses its relationship with ‘shiyao’ in his life-gua, which indicates the person’s domination of total energy. If a person’s relationship of his birth year with ‘shiyao’ of life-gua is ‘reinforce’, then he can be assigned more tasks or gets promotion and transfers because he has more positive attitude and greater potential in terms of stress management and personal potential.

Secondly, changes of ‘yao’ in a person’s life-gua represent his karma and meditative secret for spiritual practice and thought changing. If we can help employees understand changes of each moment and help them to practice and transform, then the team will get along very well and create a harmonious working environment. Moreover, according to the arrangement of a person’s birth time, each of the first six Yaos of life-gua represents a decade. As a result, we can understand a person’s interrelationship and his energy at each moment from his age. That is a good reference for the adjustment of human resource management strategy.
Additionally, because the enterprises are facing the challenges of globalization, the idea of team design is widely used in an organization to boost human resources for quick responses to environmental changes. Team diversity might arise from the team members’ different views on the tasks or goals. As a result, that encourages solution-based thinking, improves the quality of decision-making and team performance (De Dreu and Weingart, 2003). Therefore, how to effectively manage a diversified team and improve team effectiveness has become a significant issue in an organization. If a team leader knows every team member's birth year, month, day and hour, and their age when organizing his team, then he will be able to realize each member’s habits, nature, characteristics and performance. Thus, the leader can find suitable incentive language to help members understand and care each other, avoid blaming each other and reach a consensus to promote team harmony and effectiveness.

**Conclusion**

This study aims to apply I Ching life-gua of Chinese culture to elaborate human resource management and to provide a new perspective to the Western management science to facilitate the integration of Eastern and Western cultures. To sum up, this study proposes four suggestions.

1. I Ching’s life-gua provides the regular principle of adjustment for human resource management through the arrangements and connotations of I Ching life-gua of Chinese culture.
2. I Ching’s ‘Dong Yao’ of life-gua contains unchangeable heavenly secret which facilitates mutual understanding and care of organizations and individuals.
3. I Ching’s life-gua involves the meditative secret which broadens the organization’s educational views for human resources management.
4. I Ching’s life-gua emphasizes ‘everyone is good for something’. Tasks should be assigned in accordance with a person’s aptitude, right person in the right place. The virtue is the same for everyone no matter what position he is in.
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Abstract
With the increased number of psychological problems in workplace within Thailand, it becomes necessary to find ways to enhance psychological well-being for workers. One such way was to identify psychological ingredients that contribute to psychological well-being. Such attempts remained very limited in Thailand, however. This research study hence aimed to establish relationships among psychological well-being, mindfulness, cognitive reappraisal and emotional suppression. Data was collected in 148 Thai individuals who had been a worker in originations or companies (age 21 – 60 years). Participants responded to relevant measures. Multiple Regression Analysis was conducted. Findings suggested that mindfulness, cognitive reappraisal and emotional suppression together significantly predicted psychological well-being (38.5%, p < .001). Findings were discussed in terms of research contribution and clinical implication in worker’s psychological well-being enhancement.

Keywords: mindfulness, emotion regulation, suppression-emotion regulation, reappraisal-emotion regulation, psychological well-being, employee
Introduction

In Thailand, more than 50% of Thai population was in the labor force or available for work (National Statistical Office of Thailand, 2017). Making preparation for supporting this population is essential. Attempts have been made to for this preparation; however, such attempts mainly focus on the physical and financial aspects. The provision for psychological support, however, does not advance at the same pace. Attempts to understand what contribute to psychological well-being in the Thai employees still remained, especially within the cognitive domain, very limited. The current study, therefore, aims to understand cognitive factors that contribute to psychological well-being in Thai employees. Psychological well-being in this study was based on Eudaimonic well-being which arises from the awareness and development of one’s potential (Waterman, et al., 2010). In western research studies have indicated that mindfulness (Eberth & Sedlmeier, 2012), cognitive reappraisal and emotional suppression (Gross & John, 2003) contribute to psychological well-being.

Mindfulness is typically described as paying attention on purpose, in the present moment, and non-judgmentally, to the unfolding of experience moment-to-moment (Kabat-Zinn, 2003). As described, several theories discuss the place of awareness and attention in the maintenance and enhancement of psychological and behavioral functioning. One of these is self-determination theory (SDT; Deci & Ryan, 1985; Ryan & Deci, 2000), which suggest that an open awareness, as in mindfulness, may be facilitating the choice of behaviors that are consistent with one’s needs, values, and interests (Deci & Ryan, 1980). In this sense, mindfulness may facilitate psychological well-being through self-regulated activity and fulfillment of psychological needs (Hodgins & Knee, 2002) and can be facilitate directly by adding clarity and vividness to current experience and encouraging closer, moment-to-moment sensory contact with life that is, without a dense filtering of experience through discriminatory thought (Deci & Ryan, 1985; Kabat-Zinn, 2005). Mindfulness is mentioned that it is positively related to psychological well-being in many aspects such as self-esteem, optimism, pleasant Affect, positive Affect, vitality, self-actualization, autonomy, competence, relatedness (Brown & Ryan, 2003), as in recently research studies have shown that mindfulness is positively associated with psychological well-being (Eberth & Sedlmeier, 2012).

Emotion Regulations in this study are divided into two types, cognitive reappraisal and emotional suppression. Cognitive reappraisal is a form of cognitive change that involves construing a potentially emotion-eliciting situation in a way that changes its emotional impact (Lazarus & Alfert, 1964). This means that its can alter the entire subsequent emotion trajectory to decrease negative emotion. Emotional suppression is a form of response modulation that involves inhibiting ongoing emotion-expressive behavior (Gross, 1998). Moreover, suppression creates in the individual a sense of incongruence, or discrepancy, between inner experience and outer expression (Rogers, 1951). This sense of not being true to oneself, of being inauthentic rather than honest with others (Sheldon, Ryan, Rawsthorne, & Ilardi, 1997), may lead to negative feelings about the self and alienate the individual not only from the self but also from others. Research studies has shown that cognitive reappraisal is positively influence on psychological well-being, While emotional suppression is negatively influence on psychological well-being (Gross & John, 2003).
This research study aimed to establish relationships among psychological well-being, cognitive reappraisal and emotional suppression. This study attempted to understand cognitive ingredients that contribute to psychological well-being in the Thai employees.

**Psychological Well-being and Cognitive Factors**

Eudaimonic well-being which arises from the awareness and development of one’s potential. Eudaimonic conceptions of happiness are associated with notions of the true self, personal expressiveness, and meaningful goal pursuits (Ryan & Deci, 2001) and has been define as the “quality of life derived from the development of a person's best potentials and their application in the fulfillment of personally expressive, self-concordant goals" by Waterman and colleagues (2010). Which has six components: self-discovery, perceived development of one’s best potentials, a sense of purpose and meaning in life, investment of significant effort in pursuit of excellence, intense involvement in activities and enjoyment of activities as personally expressive (Lee & Carey, 2013). To summarize eudaimonic well-being is a form of psychological well-being that based on how much a person aware and understand toward oneself and the dedication to development of one’s potential. According to the previous studies, mindfulness, cognitive reappraisal and emotional suppression could be viewed as cognitive ingredients that lead to psychological well-being.

Mindfulness originates from Eastern philosophies and the traditions of meditation (Jarukasemthawee, 2015). Recently, Western psychotherapies have paid a great deal of attention to the integration of mindfulness-based techniques into interventions of mental illness. These interventions include Mindfulness-Based Stress Reduction (MBSR; Kabat-Zinn, 2003), Mindfulness-Based Cognitive Therapy (MBCT; Segal, Williams, & Teasdale, 2002), Dialectical Behaviour Therapy (DBT; Linehan, 1993), and Acceptance and Commitment Therapy (ACT; Hayes, Strosahl, & Wilson, 1999). A number of research studies demonstrate the success of these interventions to reduce psychological difficulties (Baer & Krietemeyer, 2006). Later, research studies have begun to emerge on the benefits of mindfulness in positive psychology. Shapiro, Carlson, Astin, and Freedman (2006) suggested that the practice of mindfulness could enhance well-being and positive psychological outcomes. Brown and Ryan (2003) mentioned that mindfulness is positively related to a large array of beneficial outcomes, including positive affect, life satisfaction, autonomy, self-esteem, emotional regulation, self-compassion, psychological well-being, agreeableness, extraversion, openness, and conscientiousness. However, these findings are based on correlational studies.

Emotion Regulations can be defined as the ability to respond to the ongoing demands of experience with the range of emotions in a manner that is socially tolerable and sufficiently flexible to permit spontaneous reactions as well as the ability to delay spontaneous reactions needed (Cole, Michel & Teti, 1994). According to Gross & John (2003), emotional regulations are divided into two types, namely cognitive reappraisal and emotional suppression. Cognitive reappraisal is a form of cognitive change when one deals with stressful situations. It involves construing a potentially emotion-eliciting situation in a way that changes its emotional impact (Lazarus & Alfert, 1964). This means that its can alter the entire subsequent emotion trajectory to decrease negative emotion. Emotional suppression is a form of response modulation.
that involves inhibiting ongoing emotion-expressive behavior (Gross, 1998). Emotional suppression is a form of response modulation that involves inhibiting ongoing emotion-expressive behavior (Gross, 1998). According to previous researches, a number of studies showed that cognitive reappraisal is positively associated with psychological well-being. In contrast emotional suppression appear to be negatively associated with psychological well-being (Gross & John, 2003).

Method

Participants
Participants were n = 148 (118 F, 40 M) Thai employees. Their mean age was \( M = 31.22 \) years (\( SD = 5.8 \)). They were a worker in an origination or company (age between 21 – 60 year old). They met the selection criteria of having duration of employment in current organization at least 4 month or already had passed the probation in current organization.

Measures
The measures assessed psychological well-being (Jarukasemthawee, 2015), mindfulness (Jarukasemthawee, 2015), cognitive reappraisal and emotional suppression. All measures were translated into Thai following a procedure in scale translation proposed by Brislin (1970). In this procedure a person who is bilingual in English and Thai translated the questionnaire from English to Thai, and a second bilingual person independently translated the Thai version back to English. The original and back translated questionnaires were compared and discrepancies used to refine the translation.

The Eudemonic Well-Being Scale. (Waterman et.al, 2010) is a 21-item self-report scale assessing well-being across six domains: self-discovery, perceived development of one’s best potential, a sense of purpose and meaning in life, investment of significant effort in pursuit of excellence, intense involvement in activities, and enjoyment of activities as personally expressive. Each item is rated on a five-point scale ranging from 0 (strongly disagree) to 4 (strongly agree). The scale yields a total score with higher scores reflecting higher overall well-being score was used in the current study. The internal consistency of the scale was high, \( \alpha = 0.86 \)

Freiburg Mindfulness Inventory. (Walach, Buchheld, Buttenmuller, Kleinknecht, & Schmidt, 2006) is a 14-item self-report scale including four constructs; present-moment dis-identifying attention, nonjudgmental toward self and others, openness to negative mind states, and process-oriented or insight understanding. Each item is rated on a four-point scale ranging from 1 (rarely) to 4 (almost always). The scale yields a total score with higher scores reflecting higher overall mindfulness. The internal consistency coefficient of the scale was high, \( \alpha = 0 .86 \)

The Emotion Regulation Questionnaire. (Gross & John, 2003) is a 10-item self-report scale including two constructs; cognitive reappraisal (6 items) and emotional suppression (4 items). Each item is rated on a seven-point scale ranging from 1 (strongly disagree) to 7 (strongly agree). The scale yields a total score with higher scores which separate in to cognitive reappraisal and emotional suppression. The internal consistency coefficient of cognitive reappraisal was high, \( \alpha = 0 .84 \) and 0.72 for emotional suppression.
Procedure
This study was approved by the Human Subjects Research Ethical Review Committee of Chulalongkorn University. Participation in the study was voluntary. Participants were screened for eligibility and after consenting to the study they were assessed on psychological well-being, mindfulness, cognitive appraisal, and emotional regulation.

Data Analysis
Statistical Package for Social Science (SPSS) version 21 was used to analyze data. Descriptive statistics were employed to explain demographic data of the sample. Relationships between psychological well-being, mindfulness, cognitive reappraisal, and emotional regulation were conducted using Pearson’s product-moment correlation coefficients. Additionally, enter method, multiple regression was used to analyze the predictability of mindfulness, cognitive reappraisal, and emotional regulation on psychological well-being.

Results
Descriptive statistics and the correlations among variables were given in table 1. Psychological well-being was positively associated with mindfulness ($r = .554$, $p < .001$) and cognitive reappraisal ($r = .499$, $p < .001$). There was no correlation between emotional suppression and psychological well-being found.

Table 1
Descriptive statistics and Correlations between variables (N=148).

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Psychological Well-Being</td>
<td>-</td>
<td>.554***</td>
<td>.499***</td>
<td>.025</td>
</tr>
<tr>
<td>2. Mindfulness</td>
<td>.554***</td>
<td>-</td>
<td>.579***</td>
<td>.344***</td>
</tr>
<tr>
<td>3. Cognitive Reappraisal</td>
<td>.499***</td>
<td>.579***</td>
<td>-</td>
<td>.349***</td>
</tr>
<tr>
<td>4. Emotional Suppression</td>
<td>.025</td>
<td>.344***</td>
<td>.349***</td>
<td>-</td>
</tr>
<tr>
<td>$M$</td>
<td>57.97</td>
<td>41.74</td>
<td>32.38</td>
<td>19.24</td>
</tr>
<tr>
<td>$Mdn$</td>
<td>57</td>
<td>41</td>
<td>32</td>
<td>20</td>
</tr>
<tr>
<td>$Sk$</td>
<td>0.17</td>
<td>0.07</td>
<td>-0.10</td>
<td>-0.55</td>
</tr>
<tr>
<td>$Ku$</td>
<td>-0.37</td>
<td>-0.09</td>
<td>-0.63</td>
<td>0.47</td>
</tr>
<tr>
<td>$SD$</td>
<td>9.51</td>
<td>5.84</td>
<td>5.39</td>
<td>3.96</td>
</tr>
<tr>
<td>$Min$ -$Max$</td>
<td>33 - 80</td>
<td>25 - 55</td>
<td>19 - 42</td>
<td>5 - 28</td>
</tr>
<tr>
<td>Possible score</td>
<td>0 - 84</td>
<td>14 - 56</td>
<td>6 - 42</td>
<td>4 - 28</td>
</tr>
</tbody>
</table>

*** $p < .001$

Multicollinearity of variables were given in table 2. All the variables has tolerance more than 0.19 and has Variance Inflation Factor (VIF) less than 5.3, which means that all variables are independent from each other.
Table 2
Multicollinearity of variables.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mindfulness</td>
<td>.642</td>
<td>1.557</td>
</tr>
<tr>
<td>Cognitive Reappraisal</td>
<td>.639</td>
<td>1.564</td>
</tr>
<tr>
<td>Emotional Suppression</td>
<td>.848</td>
<td>1.179</td>
</tr>
</tbody>
</table>

Results of Multiple Regression were given in table 3 using Enter method, Which found that all three variables together could predict psychological well-being at 40.5 percent ($R^2 = .405$, $p < .001$) When considering the standardized coefficients of variables found that all three variables are predictors, Mindfulness ($\beta = .45$, $p < .001$), Cognitive reappraisal ($\beta = .32$, $p < .001$) and Emotional suppression ($\beta = -.24$, $p < .01$).

Table 3
Multiple Linear Regression among variables.

<table>
<thead>
<tr>
<th>Variables</th>
<th>b</th>
<th>SEB</th>
<th>$\beta$</th>
<th>$F$</th>
<th>$R$</th>
<th>$R^2$</th>
<th>Adjusted $R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychological Well-Being</td>
<td>32.70</td>
<td>.637</td>
<td>.405</td>
<td>.393</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>20.09</td>
<td>4.81</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mindfulness</td>
<td>.73</td>
<td>.13</td>
<td>.45***</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cognitive Reappraisal</td>
<td>.57</td>
<td>.14</td>
<td>.32***</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotional Suppression</td>
<td>-.58</td>
<td>.17</td>
<td>-.24**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

** p < .01, *** p < .001

Discussions

Based on the study findings, several conclusions can be drawn. First both mindfulness and cognitive reappraisal are positively associated with psychological well-being, While emotional suppression is not correlated with psychological well-being. However the results showed that that psychological well-being of Thai workers was predicted by all variables namely mindfulness, cognitive reappraisal and emotional suppression. The results in this study contributed to psychological knowledge of Thai workers that in accordance with the previous studies, the results of Eberth and Sedlmeier (2012) shown that mindfulness was positively associated with psychological well-being, and Sin and Lyubomirsky (2009) found positive influence of mindfulness on psychological well-being. In addition, the findings from this study
support previous research which showed that cognitive reappraisal is positively influence on psychological well-being, While emotional suppression is negatively influence on psychological well-being (Gross & John; 2003; Sin and Lyubomirsky, 2009 and Quoidbach, Berry, Hansenne & Mikolajczak, 2010).

The explanation of mindfulness, cognitive reappraisal and emotional suppression may lead to psychological well-being could be viewed. Mindfulness is a statement of present moment and dis-identifying attention, non-judgmental and non-evaluative attitude towards self and others, openness to negative mind state and oriented insight (Walach, Buchheld, Buttenmuller, Kleinknecht, & Schmidt, 2006). This could help the workers to promote psychological well-being through clear perceptions toward stimuli, and reduce negative thoughts and emotions. Consequently, this cognitive process may lead to enhanced psychological well-beings.

While the uses of emotion regulations in cognitive reappraisal that focus on cognitive change toward situations (Gross & John, 2003), make the workers change the aspect toward situations, to be more satisfied and appears connected to a more global sense that they are in charge of their situations. That will leads to enhancing in psychological well-beings. On the other hand, emotional suppression is a form of response modulation that involves inhibiting ongoing emotion-expressive behavior (Gross, 1998). Individuals who used emotional suppression dealing with situations, ones could feel a sense of incongruence, or discrepancy, between inner experience and outer expression (Rogers, 1951). This could lead to decrease in psychological well-being.

**Limitations**

Although this study may be provide useful insight into the associations among mindfulness, emotional regulation and psychological well-being. However, there are some limitations that need to be addressed. A common limitation in psychological studies is the use of self-report data, which is susceptible to social desirability. Given that the current study relied on self-report measures, it is susceptible to this form of bias. Future studies should aim to expand the data collection beyond self-report measures by using other methods, such as behavioural assessments. Another limitation in this study is that findings are based on a cross-sectional design. Therefore, conclusions about temporal precedence cannot be made. Future studies should aim to address this limitation in order to clarify the causal linkage between mindfulness, cognive reappraisal and emotional suppression and psychological well-being.
References


**Contact email:** tao20234@gmail.com