The Relationship between Self-Concept, Intrinsic Motivation, Self-Determination and Academic Achievement among Chinese Primary School Students

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Abstract
The main purpose of this study is to examine the relationship between self-concept, intrinsic motivation and self-determination with academic achievement among the respondents. The sample of the study was 200 students in standard 5 and standard 6 from a Chinese primary school in Johor, Malaysia. Data was collected using a self-developed set of questionnaire. The reliability of the instrument was tested using Cronbach’s Alpha and the result was 0.941. The data was analyzed using Statistical Package for Social Science (SPSS) version 17.0. Pearson correlation at the significant level of 0.05 was used in order to determine the relationships among the measured variables. Research finding shows that correlations between independent variables (self-concept, intrinsic motivation and self-determination of the respondents) and dependent variable (academic achievement) were all significantly low. Analysis of previous research discovers several salient factors in relation to the current research findings.

Keywords: Self-concept, Intrinsic motivation, Self-determination, Academic achievement

1. Introduction
Over the years, academic achievement becomes extremely important for a student. Their academic achievement can be related to their choices of subject or streaming and even their secondary school, university and scholarship. Although education is not the only road to success in the working world, much effort is made to identify, evaluate, track and encourage the progress of students in schools. Parents care about their children’s academic achievement because they believed that good academic results will provide more career choices and job security. Schools are also often influenced by the concern about the school’s reputation, which can hinge on the overall academic achievement of the school.

One of the most persistent puzzles confronting parents and teachers is uneven academic achievement among equally able students. Often educators complain that students are unmotivated to learn; parents echo this cry and each blame the other for the students' apathetic response to learning (Niebuhr, 1995). What factors to cause some students to go above and beyond their personal and environmental constraints? Is it related to their self-concept, self-determination, intrinsic motivation, extrinsic motivation, parents’ socio-economic status, home environment, school environment, teachers’ expectations, peer relationship and some other factors? In fact, there are many factors that contribute to different academic achievement of children. These factors include the parents’ socio-economic status (Anisef and Bunch, 1994; Cassidy and Lynn, 1991), amount of time that parent spent with children (Muola, 2010), teachers’ expectancies (Haynes and Johnson, 1983) and effects of peer relationships...
(Adeyemo and Torubeli, 2008; Berndt et al., 1990; Levitt et al., 1994). Other things that may influence academic achievement include child motivational (Nunez et al., 1998), parenting styles (Darling and Steinberg, 1993; Steinberg, 1996; Nooraini and Azizi, 2004) and parental expectation (Muola, 2010).

Rogers (1951) views the self as the central ingredient in human personality and personal adjustment. He maintained that there is a basic human need for positive regard both from others and from oneself. Motivation action may be either self-determined or controlled. To the extent that it is self-determined, it is experienced as freely chosen and emanating from one’s self, not done under pressure from some internal or external force (Brophy, 1998). According Deci and Ryan (Deci 1980; Deci & Ryan, 1985; 1991), self-determination is “the process of utilizing one’s will” (Deci, 1980). Self-determination requires that people accept their strengths and limitations, be cognizant of forces acting on them, make choices, and determine ways to satisfy needs (Pintrich and Schunk, 2002). Will and self-determination are linked: To be self-determining, people have to decide how to act on their environment.

Academic achievement is defined by Crow and Crow (1969) as the extent to which a learner is profiting from instruction in a given area of learning or in other words, achievement is reflected by the extent to which skill and knowledge has been imparted to him. Academic achievement also denotes the knowledge attained and skill developed in the school subject, usually designed by test scores. The level of achieving is how far a student succeeds in a particular exam or standardized test (Reber, 1985).

In educational setting, success is measured by academic achievement, or how well a student meets standards set out by local government or the institution itself. In primary and secondary schools in Malaysia, academic achievement always measured by students’ examination result, it is not only the examination held by local government such as UPSR, PMR, SPM and STPM, but also the monthly test, mid-term test or standardized test which conducted by the school or district. The most important things is the students get as many “A” as they can in the examination although different schools or districts have different grading system. Thus, in this study, academic achievement means how well a student scores in their mid-term examination in school. It was assessed by the students’ teachers and represented by the mean scores of each evaluated subjects the students’ scored in the mid-term test. High academic achievement means the student is doing well in the examination, especially for those who score all “A” in the examination. While low academic achievement means the student is doing poorly in the examination, especially those who failed in all the subjects.

Over the past decades the relation between the students’ self-concept, intrinsic motivation, self-determination and their academic achievement emerged as a “chicken-egg” question. The critical question runs as follows: Is there any relationship between students’ self-concept, self-determination, intrinsic motivation and their academic achievement or does academic achievement has a major causal influence on the self-concept, self-determination and intrinsic motivation? Then what is the relationship among them? Are these three factors influence the students’ academic achievement in primary school? Therefore, the purpose of this study was to examine the relationship between self-concept, self-determination, intrinsic motivation and academic achievement of the studied Chinese primary school students.

2. Research Design

The research design of this study is quantitative research. The purpose of this study is to examine the relationship between self-concept, intrinsic motivation, self-determination and academic achievement of the respondents.

3. Methods

3.1 Participants

The sample was selected from a Chinese primary school in Pasir Gudang district, Johor, Malaysia. It consists of 200 students from standard 5 and standard 6. The sample was selected using simple random sampling.

3.2 Measures

A self-developed instrument was used for the data collection purposes. Sufficient literature review has been made before the development of the item statements. Face and content validations were made by three judges from the field of psychology. The reliability test indicated that the instrument was reliable given the overall reliability value of Cronbach’s Alpha was .941.

4. Data Analysis

In this study, three null hypotheses were tested for significance level at 0.05 margin of error. They are:

H$_{01}$: There is no significant relationship between self-concept and academic achievement of the respondents.
H₀₂: There is no significant relationship between intrinsic motivation and academic achievement of the respondents

H₀₃: There is no significant relationship between self-determination and academic achievement of the respondents.

The data collected were analyzed using SPSS version 17.0. Pearson’s Correlation was used to examine the relationships among independent variables (self-concept, intrinsic motivation and self-determination) and dependent variable (academic achievement). Self-concept and academic achievement of the respondents exhibit weak correlation. Intrinsic motivation and academic achievement of the respondents also exhibit weak correlation and these two variables tend to go in opposite direction. Self-determination of the respondents is weakly linked to their academic achievement and these two variables tend to go in opposite direction too. The correlations among the variables were assessed and presented in Table 1.

5. Findings and Discussions

5.1 The Relationship between Self-Concept and Academic Achievement

The research finding shows that there is a weak significant relationship between self-concept and academic achievement among the respondents. These findings were contrasted with some of the previous researches (Anderson & Johnson, 1971; Aryana, 2010; Francisco & Maria, 2003; Marsh & Craven, 1997; Marsh et al., 2000; Marsh et al., 2005; Mboya, 1989; Nuthana & Yenagi, 2009; Skaalvik, 1997; Valentine et al., 2004), in which they found that there were significant relationship between self-concept and academic achievement.

However, the finding of the research is similar to the researches done by Bachman & O'Malley (1977), Habibollah et al. (2009) and Maruyama et al. (1981), where they found that there was no significant relationship between student’s self-concept and their academic achievement. In another findings, Azizi and Jamaludin (2009) also found that there was no significant relationship between self-concept and academic achievement. Consistent findings were reported in another study by Azizi et al. (2009) with Pearson correlations analysis showed that there were no significant relationship between self-concept dimensions with the student’s academic achievement. This study was using three dimensions of self-concept such as family, social and personal, but the findings illustrated that there were no significant relationships between these three dimensions of self-concept with the student’s academic achievement.

Many researchers agree that self-concept is not innate, but rather it is formed through an individual’s experiences and interaction with the environment (Bong and Clark, 1999; Bong and Skaalvik, 2003; Marsh and Shavelson, 1985), where “significant others” play an important role (Sanchez and Roda, 2003; Shavelson et al., 1976). The parents, the teachers, the family members, a relative or a peer are most likely choices for the role of a significant other. There are numerous factors that influence a student’s self-concept. However, the most important and significant factors that influence students’ self-concept are parents (Burns, 1982). According to Stott (1939), teenagers coming from homes where there was acceptance, mutual confidence and compatibility between parents and children, were better adjusted, more independent, thought more positively about them and having positive self-concept.

In contrast, what has happened in most cities are most of the family are dual-earner families, especially in urban area. Research shows that nearly 75% of the mothers of school-age children are employed outside of the home (DelCampo, 1994). According to Johari (2009), in 2004, about 54.6 % Malaysian lived in the urban areas. High cost of living in the urban areas has forced Malaysian mothers to leave their children for employment. 62.8% of mothers with children below 15 years of age working full-time nowadays (Department of Statistics, Malaysia, 2004). Pasir Gudang area can be considered as an urban area and many parents are working in Singapore. Some of the parents came home and met their family once a week or during weekends and some of them travelled on a daily basis from Pasir Gudang to Singapore. This could be explained by virtue of the close proximity between Pasir Gudang and Singapore as well as the high currency exchange offered by the Singapore employers. Thus, these parents are busy with their jobs, having limited time to participate and involve themselves in home learning activities and have less opportunity to teach and guide their children in their school works as well as building the children’s self-concept and teaching them morals and values. Specifically, parental involvement has been one of the most significant indicators of school effectiveness (Clemons, 2005; Johari, 2009; Morrison, 2009; Rosenblatt & Peled, 2002) and psychological adjustment in children (Veneziano & Rohner, 1998). A study done by Gibson & Jefferson (2006) also revealed that parental involvement has an influence on children self-concept. Parents’ involvement may establish a sense of relatedness between parents and children, thereby fostering closeness between parents and children (Grołnick & Słowiack, 1994). Research indicates that parental involvement can help children achieve higher grades through monitoring their daily activities and by keeping close track of their
school progress (Fehrmann et al., 1987). Furthermore, it can contribute positively to the psychological well-being of the children (Flouri & Buchanan, 2003).

The next significant others that may influence student’s self-concept are teachers. Teachers also are the student’s role model. Based on Buri (1991) teachers play an important role in developing the self-concept among child. According to Leung et al. (1998), school influence is very important in developing the student’s personality as the process of socialization at home should be carried out further in schools. Thus, teachers have direct influence on a child’s feelings, inspirations, self-concept and attitudes and hence influence their academic achievement. In relation to the present study, the studied Chinese school practised class streaming and some of the respondents participated in the study are higher achiever. The teachers who teach the higher ranked classes may have higher expectations for their academic achievement compared to the normal classes. Although the higher achievers achieved the excellent result in a test, the teachers may seldom praise the students as most of them scored with flying colours. This may lower the students’ self-concept. However, if the same things happen in normal classes, the teachers may praise the high achievers in front of the class and encourage the lower-achievers to learn from the high-achievers. This action helped to increase the student’s self-concept. In reality, Burnett (1997) reported that positive statements made by teachers had a direct effect on children's positive self-talk which in turn had a direct effect on children's self-concept.

Hirsch and Rapkin (1987) found that peer support was associated with high self-concept. In general, the high-achievers in normal classes may have higher self-concept if compared to high-achievers from the top class. It is because the students from normal classes mostly are averaged achievers, but the students in the top class all are high-achievers. Consider the same situation again, if the high-achievers in normal classes attained the excellent result in a test, the peers may praise and congratulate them right after the teacher announced their result, but this event may not be happening in the top class since all of them are high-achievers and their result may almost be at par.

5.2 The Relationship between Intrinsic Motivation and Academic Achievement

Research finding demonstrated that there is a weak and negative significant relationships between students’ intrinsic motivation and their academic achievement. The finding was similar with Niebuhr (1995) which indicated that student’s intrinsic motivation showed a weak significant effect on the relationship with academic achievement. The findings suggest that the elements of both school climate and family environment have a stronger direct impact on academic achievement. Overall, little or no relationship was found between young children’s intrinsic motivation and their academic achievement. Stipek and Ryan (1997) found that children’s cognitive skills were far better predictors of end-of-the-year achievement than motivation.

The research findings also found that there is a weak relationship between student’s intrinsic motivation and their academic achievement. It may be caused by the parents of the respondents who may likely use extrinsic motivation such as monetary, presents and so on to reward their children for their excellent achievement in a test. However, it should be noted that a research done by Deci (1971) showed that there was a trend towards decrease in intrinsic motivation after money was provided to the participants as external reward. In another research, Pritchard et al. (1975) confirming the hypothesis presented by Deci that contingent monetary reward for an activity decreases the intrinsic motivation to perform that activity. Most notably, researchers have found that the detrimental effect of tangible rewards tends to be stronger for elementary-age children than for college students (Deci et al., 1999). A common example of a switch from intrinsic to extrinsic motivation occurs for many children as they progress from the preschool to the early school years.

In addition, at the end of the year, the Parent and Teacher Association (PTA) of the school would praise the high-achievers in each class and every standard with presents or monetary rewards. Generally, in many classrooms or schools, an inadequate number of rewards, plagues, and certificates, were distributed unequally, with the greatest number of rewards going to the best performers or to the fastest learners (Covington, 2000). This situation implies that achievement is maximized when students actually compete for a limited number of rewards. Students are motivated or aroused for the wrong reasons: to win over others and to avoid losing; such reasons may lead students to eventual failure, frustration, and resentment (Covington, 1998; 1999). Thus, this kind of activity may lower the student’s intrinsic motivation, arouse the wrong moral for students and is not suitable to be implemented in school.

Another factor that may cause a weak relationship between student’s intrinsic motivation and their academic achievement is home environment. The term “home environment” refers to all the objects, forces and conditions in the home which influence the child physically, intellectually and emotionally (Muola, 2010). The parents tend to buy something the children’ like rather than something that is useful and suitable for the children. This might
be one of the reasons why most of the respondents have computer, notebook and PlayStation portable instead of the story books or reference books at home. This situation may discourage the learning activities and does not provide a learning environment at home. The children prefer to play computer games rather than reading story books, school books and doing their relevant academic exercises. In fact, home environment has a positive and significant influence as well as direct and indirect effect to intrinsic motivation from childhood through early adolescence (Gottfried et al., 1998). Moreover, children are motivated to learn new information and skills when their environments are rich with interesting activities that arouse their curiosity and offer moderate challenges (Schunk et al., 2008). Thus, homes should have many activities that stimulate children’s thinking, as well as books, puzzles, and the like.

5.3 The Relationship between Self-Determination and Academic Achievement

Research finding shows that there is a weak significant and negative relationship between students’ self-determination and their academic achievement. The finding was contrasted with few studies which found a positive relationship (Sarver, 2000; Thoma & Getzel, 2005; Wehmeyer & Palmer, 2003; Wehmeyer & Schwartz, 1997) between the measured variables. These findings are in agreement with the assumption of self-determination theory that a person's basic psychological needs for autonomy, competence, and relatedness must be met on an ongoing basis for the person to function at their best (Ryan & Deci, 2000).

However, the research finding was consistent with another research done by Ahmed and Bruinsma (2006), which also showed that student’s self-determination exhibits a weak correlation with their academic achievement. According to Ahmed and Bruinsma (2006), in their research, there was no significant relationship between student’s self-determination and their academic achievement for Asian sub-sample, but showed significant relationship for European sub-sample. They concluded that Asians are more “externally” motivated. Since Malaysia is located in the Asian region, it is not surprising for this study to show the present research finding. Other than that, a research done by Bae (2007) found that only a small proportion of academic achievement was accounted for by self-determination.

Some of the respondents came from single families which their parents were divorced and some others are working in Singapore, particularly the students from the normal classes. They lived with their grandparents, with the guardians or stay at welfare house. Thus, they might not meet the basic psychological needs for autonomy, competence and relatedness and mostly did not perform at their best.

Another factor that may cause no significant relationship between student’s self-determination and their academic achievement is parenting styles. Most of the respondents attended many tuition classes after school. They do not willingly joint the tuition classes, but forced to do so by their parents. Hence, they just follow the activities and plans arranged by their parents and attended the tuition classes without any interest to study or willingness to learn. This type of behaviour does not function to self-motivate and contribute to their self-determination, hence resulting decrease in their academic achievement. This type of parenting style can be considered as authoritarian parenting style (Nooraini, 2004).

According to Santrock (2007), authoritarian parenting style is a restrictive, punitive style in which parents exhort the child to follow their directions and to respect their work and effort. Scholars agree that an authoritarian parenting style was the norm in the Chinese traditional family system, based on Confucian philosophy (Lau and Cheung, 1987; Tseng and Wu, 1985). Since the present research was done in Chinese-national type primary school, thus more than 90% of students from this school are Chinese. Chao (1994) characterization of the authoritarian behaviour of Chinese parents’ falls into general authoritarianism as it is mostly concerned with controlling the behaviour of their children and demanding their obedience. Thus, children with this type of parenting may have less social competence as the parent generally tells them what to do instead of allowing them more freedom of choice.

6. Conclusion

This study shows that there is a weak significant relationship between self-concept and academic achievement among the students, a weak and negative significant relationship between students’ intrinsic motivation and their academic achievement and a weak significant and negative relationship between students’ self-determination and their academic achievement.

However, previous studies indicated that academic achievement among students is influenced by several important factors which directly and indirectly related to self-concept, intrinsic motivation and self-determination. Apart from such relationship, there are other factors considered to be salient in nature but relevant and contribute to the success of the students’ performance. These factors include the role of significant
others such as family support, teachers’ attitude and peers understanding which have been found by this research.

References


Table 1. Summary of the correlation

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<thead>
<tr>
<th>Items</th>
<th>Academic Achievement</th>
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</thead>
<tbody>
<tr>
<td>1. Students’ self-concept</td>
<td>0.033</td>
</tr>
<tr>
<td>2. Students’ intrinsic motivation</td>
<td>-0.135</td>
</tr>
<tr>
<td>3. Students’ self-determination</td>
<td>-0.065</td>
</tr>
</tbody>
</table>