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Students' self-directed learning behavior: Cross cultural research (Thailand and Australia)

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Article Info

Abstract

This study aimed to examine students' self-directed learning and to compare the difference between Thai and Australian students. The participants consisted of two hundred undergraduate students from Thailand and Australia. The instrument used in this study was an online self-directed learning questionnaire which comprised of 25 items assessing eight factors related to self-directed learning readiness based on Guglielmino. The English-version of the online questionnaire was administered to Australian students, while the Thai-version was used for Thai students. Mean, standard deviation and t-test were used to analyze the data. The result revealed that the average score on self-directed learning of Thai students was $M = 3.17$ ($SD = 0.34$), while the average score of Australian students was $M = 3.74$ ($SD = 0.43$). Considering each factor of self-directed learning, it was found that the Australian students had better scores on openness to learning opportunities ($M = 4.19$, $SD = 0.68$), initiative and independence in learning ($M = 4.09$, $SD = 0.68$), creativity ($M = 3.97$, $SD = 0.79$) and all other categories except for providing positive orientation to the future. Students had high scores on providing positive orientation to the future ($M = 3.75$, $SD = 0.68$), love of learning ($M = 3.28$, $SD = 0.57$) and self-concept as effective behaviors ($M = 3.24$, $SD = 0.60$). The Australian students scored higher self-directed learning than the Thai students at a statistically significant level of .05.

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Introduction

Self-directed learning is considered as an essential learning process. Specifically, self-directed learning is a process associated with self-motivation involving one's willingness to improve himself or herself using what he or she has learned. Learners with self-directed learning are able to "take the initiative, with or without the help of others, to diagnose their learning needs, formulate learning goals, identify resources for learning, select and implement learning strategies, and evaluate learning outcomes" (Knowles, 1975). In other words, self-directed learners are able to respond to their own desires because they know their capabilities and limitations. As the process of self-directed learning focuses mainly on "learning from experience" and requires learners to take

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responsibility for their own learning, knowledge and skills learned through this process remain long-term. Thus, self-directed learning is an important learning process for learners to improve their knowledge and skills.

The ability to search for knowledge is one of the indicators assuring the quality of university students. Students who learn on their own and possess the ability to seek out resources are able to constantly develop themselves for a lifetime without relying on a traditional education system (Seli & Dembo, 2020). Most importantly, self-directed learning "supports the unlimited learning potential and creativity of our students" (Robinson & Persky, 2020).

From the sociology perspective, the study of anthropology and cross-cultural research agree that psychological constructs such as aggression, learning, emotions and so on, are considered as a common human nature found in every culture across the globe. However, these constructs, for example aggressive behavior, can be learned and are controllable. Each culture has its own way of practice, motivation, and control that can influence behaviors differently (Chotiban & Yolao, 1997). Therefore, a cross-cultural study involving two or more cultures can provide researchers with a good understanding of the nature and impacts of cultures on human behaviors as well as solutions for cultural limitations in some social and behavioral science studies. Comparative studies between cultures can also answer whether or not one issue will vary depending on cultures.

Cross-cultural studies in psychology offer a precise and systematic process of comparison between constructs in different cultures so as to identify the characteristics, origins and processes as mediators to different behaviors (Berry, Poortinga, Breugelmans, Chasiotis, & Sam, 2012 as cited in Eckensberger & Schneider 1972). A cultural comparison study does not reject an individual's identity and race. An assumption of cultural research is to compare the same constructs, though this differs from reality. Currently, research studies involving human beings explore across cultures with the aim of comparing between cultures in specific meaning, focusing on answering phenomenon, frequency, trend, and causes of the cultural changes (Ember, 2009). Cross-cultural studies are considered to be a new trend of study in psychology and behavioral sciences in the United States and many European countries. It facilitates the application of target behaviors with expedience and generality. For this reason, the current study offers findings that give valuable knowledge and ideas for further application to develop our society.

The current study aimed to examine students' self-directed learning and to compare the self-directed learning between Thai and Australian students. The instruments were administered to students who studied at Monash University, Australia, and Mahasarakham University, Thailand. The results provided a better understanding regarding the effects of cultures on human behavior, in particular self-directed learning, through the self-report of undergraduate students across cultures. The main focus was to assess and compare the students' learning behavior in terms of self-learning and ability to seek out information resources.

Literature Review

Self-direction learning has a long history. Human culture would not have achieved its success or brought about changes in modern technology without self-education and self-direction learning (Mentz, Bailey, & De Beer, 2019). Self-direction learning involves student experience (Mentz & Bailey, 2020). Knowles (1975) described that self-directed learning is a process of learning which relies on analytical ability and personal desires in order to design learning methods, seek out information resources, select suitable learning processes and self-evaluate. Hiemstra (1994) argues that self-directed learning includes self-responsibility for planning, proceeding and evaluating one's own effort. Self-directed learning provides an opportunity to learn, despite the fact that individuals do not possess equal capacity to learn. This idea of learning involves aptitude, cognition, learning styles and learning objectives. Self-directed learning establishes positive reinforcement to learn by oneself (Dickinson, 1987), provides a better understanding about various sources of knowledge, as well as develop reasoning, problem solving and cognitive skills. Moreover, this learning process encourages self-regulation and desirable behaviors (Borich, 1992).

Griffin (1983) categorized concepts of self-directed learning into five major categories. First, the Knowles Group Learning Stream describes self-directed learning as a learning contract and requires task distribution to each person to accomplish the goals. This process is done under personal conditions. The second is the Though Adult Learning Projects Stream, which points out that self-directed learning consists of learning projects to identify how one relies on self-directed learning. The third is Skinner Group which describes self-directed learning as an individual program instruction. This process is to learn and follow the path and suggestions

about the study explicitly. In other words, this process relies on teacher centeredness. The fourth category involves those who have different educational perspectives such as the existence of open universities. The final category is those who believe learning can exist generally in daily life. This group believes in experiential learning in which learners have to learn and proceed experiments by themselves.

Guglielmino (1977) defines self-directed learning readiness by using the Delphi technique, including eight factors: openness to learning opportunities, self-concept as an effective tool, initiative and independence in learning, informed acceptance of responsibility for one's own learning, love of learning, creativity, positive orientation to the future, and ability to use basic study skills and problem-solving skills. The openness to learning opportunities is defined as self-encouragement to do things at which one is skillful. A person with openness to learning opportunities prefers brainstorming to other methods. He/she is enthusiastic to learn new things and responsible for their own learning. The self-concept as an effective tool means to learn and spend time learning, such as reading, or related activities with long-term goals. A person with self-concept as an effective tool likes to experiment and explore new things. Initiative and independence in learning refers to one's ability to learn by himself/herself, to be open minded, and to demonstrate leadership in school and other settings. Informed acceptance of responsibility for one's own learning means to realize what one prefers to learn about and how well he/she understands his/her roles before making decisions. He/she can handle difficulties in learning without disillusionment and also knows himself/herself well. Love of learning involves feelings that encourage learning. Creativity refers to an understanding about the topics, exploring things, working on their own, as well as applying what they have learned. Positive orientation to the future means to enjoy new challenging situations. Learners with this characteristic like to solve problems and enjoy visiting libraries. The ability to use basic study skills and problem-solving skills refers to learners who are decisive and know where to obtain the answers for questions. They are skillful in listening, reading, writing, memorizing, and learning.

In the present study, the researchers constructed a questionnaire based on Guglielmino (1977) self-directed learning readiness scale (SDLRS), which has been used in many studies (e.g. Abraham, Fisher, Kamath, Izzati, Nabila, & Atikah, 2011; Boonchoo, 1989; Smedley, 2007)

Methodology

Data Collection

In the current study, the population was undergraduate students who attended Thai and Australian universities in the 2019 academic year. Two hundred students (one hundred from Thailand and one hundred from Australia) were recruited using a snowball sampling technique. Although it is suggested that the number of participants sufficient in scale for probability purposes should be a thousand, the number from parameter suggests that one hundred participants is also acceptable (Healey, 2015). The main concern when using this process is the equality of variance between the two groups of participants (Thai and Australian students). If the variance is found unequal in small groups of participants (30 or less), the critical value needs to be replaced by "Z" for convenience. However, if the participants number is large (30 or above), the assumption will be more effective (Dowdy, Wearden, & Chilko, 2004).

To collect the data, the researchers developed an online self-directed learning questionnaire based on Guglielmino (1977) self-directed learning readiness questionnaire. It was constructed in two versions: Thai and English. The Thai-version was for Thai students and the English-version for Australian students. In order to validate the quality of the translated instrument, the researchers used a back-translation technique. (Hedrih, 2020) First, the questionnaire was developed in Thai and then translated into English. Then the English version was translated back into Thai. The original and translated documents were compared.

The questionnaire in both Thai and English involved 25 items assessing self-directed learning including 8 factors: openness to learning opportunities, self-concept as an effective, initiative and independence in learning, informed acceptance of responsibility for one's own learning, love of learning, creativity, positive orientation to the future, and ability to use basic study skills and problem-solving skills. Each item was rated on a six-point Likert scale. The internal consistency of the scale, as measured by Cronbach alpha, was .87. This number indicated instrument contained good reliability (Finch & French, 2019; George & Mallery, 2003).

The instruments were administered to students who studied at Monash University, Australia, and Mahasarakham University, Thailand. Due to time limitation and budget constraints, the researchers recruited the research assistants from the two universities that the researchers had a

connection with. The research assistants contacted the undergraduate students from these two universities explaining the purposes of the study and asked about their willingness to answer an online self-directed learning questionnaire. The students who gave consent to the study participation would then receive a link to the online questionnaire.

Data Analysis

The data from the 200 undergraduate students (100 Thais and 100 Australians) were computed. The initial eigenvalues of component factors in structural validity analysis of the evaluation tools were calculated (Fidell & Tabachnick, 2018). It presented eigenvalues of factors extracted from hypothetical data. The scree is clearly visible here, and the scree test would suggest extracting eight factors (Rust, Kosinski, & Stillwell, 2021).

To examine the quality of the questionnaire, the t-test value of discrimination was analyzed by comparing between high and low-score groups (using 27 and 73 percentile techniques). According to Gravetter, Wallnau, Forzano and Witnauer (2021), after using *t*-test, only items with a statistically significant level of .05 should be selected. The internal consistency of the scale, as measured by Cronbach alpha, was .87. The data were interpreted into 3 levels: low level (mean scores ranging from 1.0 to 2.5). medium level (mean scores from 2.6 to 4.4), and high level (mean scores from 4.5 to 6.0).

Results

Table 1 presents descriptive statistics (Means and Standard Deviations) for the overall and eight components of self-directed learning. The results revealed that Australian and Thai students scored at a medium level for self-directed learning ($M = 3.74$ and $M = 3.17$, respectively). Analyzing the components of self-directed learning showed that the Australian students had better scores on

openness to learning opportunities ($M = 4.19$, $SD = 0.68$), initiative and independence in learning ($M = 4.09$, $SD = 0.68$), creativity ($M = 3.97$, $SD = 0.79$)) and all other categories except for providing positive orientation to the future. The Thai students had high scores on providing positive orientation to the future ($M = 3.75$, $SD = 0.68$), love of learning ($M = 3.28$, $SD = 0.57$) and self-concept as effective behaviors ($M = 3.24$, $SD = 0.60$). In addition, Australian students had the lowest score on the informed acceptance of responsibility for one's own learning ($M = 3.35$, $SD = 0.69$) while Thai students scored lowest on openness to learning opportunities ($M = 2.87$, $SD = 0.56$).

Table 2 reveals that the Australian students scored higher than the Thai students for self-directed learning at a statistically significant level of .05. Interestingly, the Australian students had higher scores on 7 components of self-directed learning (out of 8) than the Thai students. They included openness to learning opportunities, self-concept as an effective, initiative and independence in learning, informed acceptance of responsibility for one's own learning, love of learning, creativity and ability to use basic study skills and problem-solving skills. The Thai students only scored higher than the Australian students for positive orientation to the future.

Conclusion and Discussion

The results point to the differences between Thai and Australian undergraduates in self-directed learning overall and in all eight factors. The results reflect a difference between the two countries, especially relating to characteristics and cultural contexts. Australia is well known as a multicultural country. Australians are laid-back and relaxed people, love playing sports (indoor and outdoor), frequently visit sport events (Neilson & Collins, 2008) and often spend time with their family. On the other hand, Thai culture is concerned very much about social class. Thai people are somewhat self-centered, lack

Table 1 Descriptive statistics for study variables

Variables	Australia			Thailand		
	$\bar{x}$	SD	Result	$\bar{x}$	SD	Result
Openness to learning opportunities	4.19	0.68	Medium	2.87	0.56	Medium
Self-concept as an effective tool	3.82	0.64	Medium	3.24	0.60	Medium
Initiative and independence in learning	4.09	0.68	Medium	2.97	0.52	Medium
Informed acceptance of responsibility for one's own learning	3.35	0.69	Medium	3.11	0.56	Medium
Love of learning	3.51	0.69	Medium	3.28	0.57	Medium
Creativity	3.97	0.79	Medium	2.98	0.61	Medium
Positive orientation to the future	3.40	0.68	Medium	3.75	0.68	Medium
Ability to use basic study skills and problem–solving skills	3.56	0.66	Medium	3.13	0.60	Medium
Self-directed learning	3.74	0.43	Medium	3.17	0.34	Medium

Table 2 *t*-test to compare self-directed learning between Thai and Australian students (overall and eight components)

Variables	Country	*N*	Mean	*SD*	T	*p*
Openness to learning opportunities	Australia	101	4.19	0.68	14.95	.000
	Thailand	100	2.87	0.56		
Self-concept as an effective tool	Australia	101	3.82	0.64	6.61	.000
	Thailand	100	3.24	0.60		
Initiative and independence in learning	Australia	101	4.09	0.68	13.05	.000
	Thailand	100	2.97	0.52		
Informed acceptance of responsibility for one's own learning	Australia	101	3.35	0.69	2.69	.008
	Thailand	100	3.11	0.56		
Love of learning	Australia	101	3.51	0.69	2.54	.012
	Thailand	98	3.28	0.57		
Creativity	Australia	101	3.97	0.79	10.01	.000
	Thailand	100	2.98	0.61		
Positive orientation to the future	Australia	101	3.40	0.68	-3.61	.000
	Thailand	100	3.75	0.68		
Ability to use basic study skills and problem–solving skills	Australia	101	3.56	0.66	4.90	.000
	Thailand	100	3.13	0.60		
Self-directed learning behavior	Australia	100	3.74	0.43	10.15	.000
	Thailand	94	3.17	0.34		

consideration for others and rather work alone than do group work (Ramangkoon, 2017). The diversity of cultural systems is important and has an influence on social structures. Society and culture are closely related with each other. Culture shapes people' behaviors, belief, values and personalities in the way society wants. Thus, each society has its own culture which may enhance or inhibit changes in society. The study conducted by Guglielmino and Guglielmino (2008) revealed that self-directed learning was associated with the contexts in organizations. Similarly Tuanma (1996) found that environment was positively correlated with self-directed learning readiness.

When comparing the self-directed learning between Thai and Australian students, it was found that the Australian students had higher self-directed learning scores than the Thai students at a statistically significant level of .05. Notably, the Thai students only scored higher than the Australian students for positive orientation to the future. These findings can be explained through 3 important aspects: (1) heredity, including physical and psychological characteristics, passed from one generation to the next via genes; (2) environment, which involves the desires of society where people live and are shaped; and (3) situational conditions that are changeable and that influence people's characters. These aspects have a great influence on an individual's personality and behavioral patterns (Carson, 2019). The differences in self-learning are a result of emotion, feelings, personality and cultures (Favaretto, Musse, & Costa, 2019). Likewise, Frambach, Driessen, Chan, & Vleuten (2012) explored how globalization about problem-based learning enhances self-learning culture.

They collected data from three different regions: East Asia, Middle East, and West Europe, in order to investigate the impacts of cultural background on self-directed learning. The result showed that for Middle Eastern students, the uncertain culture and tradition challenged their self-learning. Such factors, however, had little effect on students from West European countries. This supports the current study's findings, which is that Australian participants present an outstanding score on openness to learning opportunities, while Thai students outperformed in only positive orientation to the future.

Recommendations

The result that Thai students scored higher than Australian students for positive orientation to the future, may be positively associated with adaptation and acceptance, no matter what happens in their studies. It is important for Thai students to improve in the other factors, including controlling oneself, exchanging ideas with others, learning new things, enjoying learning, being responsible for his or her own learning, being an active learner, as well as challenging his or her ability.

The recommendation for future projects is to explore the concept of quantitative research and apply cross-sectional study so that the findings will provide a better understanding. Due to the limitation in terms of time and budget, the current study focused mainly on quantitative data. Hence, it is suggested that the concept of quantitative research or longitudinal study should be considered.

Conflict of Interest

There is no conflict of interest.

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