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Measuring Self-Directed Learning Readiness Among Students of Universiti Teknologi MARA

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ABSTRACT

The main objective of this study was to examine whether the Universiti Teknologi MARA (UiTM) students were ready to pursue self-directing learning as their new learning style. This study applied a quantitative approach using questionnaire as the survey instrument. The instrument was distributed to a sample of 470 final year undergraduate students from Faculty of Information Management (IS), Faculty of Office Management and Technology (OM), and Faculty of Communication and Media Studies (MC) of Universiti Teknologi MARA (UiTM). The total response rate was 87.23% or 410 responses. A combination of descriptive statistics, mean ranking, and one-way analysis of variance (ANOVA), were used to analyze the data. On the average, students perceived themselves to be ready with self-directed learning style. The component of Positive Orientation to the Future was the most important in contributing to the readiness in self-directed learning. The students of OM were relatively the most ready for the new learning style than students of MC and students of IS and the differences were significant. The findings will be useful to educators and policy makers in universities and those designing Flexible Learning Program for lifelong learning.

Keywords: *Self-directed learning, Readiness, Universiti Teknologi MARA*

Introduction

In a competitive environment of the twenty-first century, university students can no longer study solely on "traditional" way of learning. Students are

supposed to be self-directed learners where much of the studies are carried on their own initiative and effort. The pendulum in university teaching is moving away from teacher-centered learning, towards more self-direction and students are responsible for their learning with the objective of encouraging independent life-long learning. Self-directed learning, student-centered learning, self-planned learning, self-initiated, self-teaching, self-regulated learning, autonomous learning, independent study, they are frequently carried out alone. Broadly defined, self-directed learning refers to activities where primary responsibility for planning, carrying out, and evaluating a learning endeavour is assumed by the individual learner (Brockett, 1983).

Guglielmino (1977) defines a self-directed learner as an individual who exhibits initiative, independence, and persistence in learning, one who accepts responsibility for his or her own learning and views problems as challenges, not obstacle; one who is capable of self-discipline and has a high degree of curiosity; one who has a strong desire to learn or change and is self-confident; one who is able to use basic study skills, organize his or her time, and set appropriate pace for learning and to develop a plan for completing work, one who enjoys learning and has a tendency to be goal-oriented.

Currently, most of the universities in Malaysia are practicing teacher-centered learning style in which the lecturer becomes the active agent in delivering the information especially for the undergraduate programs while the students just accept what have been told by their lecturers wholly without questioning the content given. This approach is not a practical learning style in producing excellent and quality graduates because the students themselves tend to become passive (Berry, McIntyre & Nyman, 1999). Therefore, a self-directed learning is the solution to this learning style in which the learner takes the initiative to analyze and diagnose their learning needs, formulates their personal learning goals, identifies the resources for learning, develops and implements learning strategies and reflection of their achievements (Knowles, 1975). In this learning style, students should be more responsible for their own learning and collaborate with other learners and resources including the appropriate use of information communication technology. The problem here is whether the final year students in Universiti Teknologi MARA are ready to practice self-directed learning as a learning style and realize its importance. Thus, this research seeks to investigate the extent of their readiness to practice this learning style in meeting future challenges in education.

The objectives of this research is to explore students' perceptions on their readiness in pursuing selfdirected learning as their new learning style, and to compare the difference on the levels of their readiness to engage in self-directed learning style among students from the three faculties. The respondents that were being studied were students of the Faculty of Information Management, Faculty of Office Management and Technology, and Faculty of Communication and Media Studies. Thus, the research questions are:

1. What are the students' levels of readiness in self-directed learning as their new learning style?
2. Is there a difference among the students of the three faculties regarding the levels of readiness in engaging self-directed learning as a new learning style?

Literature Review

The theory on self-directed learning in this research is based on the concepts and ideas of Knowles (1975) and Guglielmino (1977). During the late 1970s and early 1980s, Guglielmino (1977) initiated groundbreaking work on self-directed learning readiness building on the adult learning orientations of Knowles (1975). Guglielmino (1977) develops the "Self-Directed Learning Readiness Scale" to assess adult readiness for independent learning. As part of her dissertation work in 1977 at the University of Georgia, Lucy Guglielmo develops and field tested the Self-Directed Learning Readiness Scale (SDLRS), a Likert-type questionnaire with five response options per question (Guglielmino, 1977). The SDLRS is later expanded to its current 58 items. The SDLRS has become the most widely used instrument for assessment of self-directed learning readiness (Merriam & Brockett, 1997). Guglielmino's (1977) 58-item survey encompasses eight underlying self-directed learning readiness factors. They are: 1) Openness to learning opportunities, 2) Self-concept as an effective learner, 3) Initiative and independence in learning, 4) Informed acceptance of responsibility for one's own learning, 5)Love of learning, 6) Creativity, 7) Positive orientation to the future, and 8) Ability to use basic study skills and problem solving skills.

Guglielmino asserts that these factors correlate favorably with the definition of a highly self-directed learner as defined by the Delphi survey of the experts (Guglielmino, 1977, p. 3) which is "a highly selfdirected learner, based on the survey results, is one who exhibits initiative, independence, and persistence in learning; one who accepts responsibility for his or her own learning and views problems as challenges, not obstacle; one who is capable of self-discipline and has a high degree of curiosity; one who has a strong desire to learn or change and is self-confident; one who is able to use basic study skills, organize his or her time and set an appropriate pace for learning, and to develop a plan for completing work; one who enjoys learning and has a tendency to be goal-oriented."

Torrance and Mourad's (1978) study provide supports for the construct validity of the SDLRS instrument. Significant positive correlations are found between self-directed learning readiness and the following: three measures of originality, the ability to develop analogies in the description of photographs, creative personality, creative achievements, and right hemisphere style of learning.

In another study, Oddi (1985) develops an instrument designed to identify what she refers to as "selfdirected continuing learners". The Oddi Continuing Learning Inventory (OCLI), a 24-item Likert scale, grows out of Oddi's concern over the lack of a theoretical foundation for understanding personality characteristics of self-directed continuing learners. The development of this instrument is an outgrowth of the need to distinguish between personality characteristics of self-directed learners and the notion of selfdirected learning as "a process of self-instruction" (Oddi, 1985).

A study in Malaysia by Norliya (2007) on readiness of self-directed learning among students in a public university found that respondents perceived themselves to be relatively most ready for the new learning style as they have a positive orientation towards the future. This is followed by the fact that they love learning; that they are able to use basic study to solve problem skillfully; that they accept responsibility for their learning; that they have the initiative and are independent in their learning; that they are creative; that they are open to learning opportunities; and that they are effective self-concept learners.

Norliya, Norhayati and Nor Rashimahwati (2008) reported that a study on self-directed learning readiness and its relationship with personality traits reveal that the respondents are very positive about themselves having a positive personality trait. The respondents claim that they do have positive personality trait that is, having the desire to be "good" at something as the top in the list. This is followed by having imagination, having sense of humor, set goals in learning and able to work independently. Even though the mean score of "I am able to think outside the box" is the last in the list, the mean score is still above the average indicating that the respondents are positive about themselves.

A correlation analysis was carried out to determine the relationship between the level of readiness in life-long learning and the level of readiness in self-directed learning style in general, as well as its relationship with the individual components of self-directed learning readiness. As reported by Norliya, Nor Rashimahwati and Norhayati (2008) the study reveals that readiness in life-long learning is positively and highly correlated with readiness in self-directed learning style, that is, as level of readiness in life-long learning increases, level of readiness in self-directed learning style also increases. This positive relationship also manifests in all the individual components of self-directed learning style. The coefficients of correlation which range from moderately correlated to highly correlate are statistically significant. The level of readiness for life-long learning has the strongest correlation with Self-concept as an effective learner followed by the ability to use basic study and problem solving skills. The rest of the components are moderately correlated with life-long learning with openness to learning opportunities being the weakest.

Methodology

A survey research method was adopted to address the research questions with questionnaire as the instrument. It was partly adapted from Guglielmino's (1997) "Self-Directed Learning Readiness Scale" (SDLRS). The questionnaire was pre-tested and a pilot study was conducted. The survey instruments were distributed to a total population of 470 (N = 470) respondents. They were from the Faculty of Information Management, Faculty of Office Management and Technology and from the Faculty of Communication and Media Studies of Universiti Teknologi MARA, Shah Alam, Malaysia. The total response rate was 87.23% or 410 responses (n = 410).

For analyzing the data collected from the respondents, the statistical test that was used was the descriptive statistics with mean ranking and standard deviation. For the inferential statistics, the test that was used was the one-way analysis of variance (ANOVA). The method of measuring reliability in this study was the internal consistency method. The internal reliability of each item in the questionnaire was tested statistically by using Cronbach's alpha technique. The normality assumption of the survey data was tested to determine the statistical technique to use. In this study, the variables in the questionnaire were based on a 1-7 low-high scale. Therefore, when respondents marked 5 or more (5 to 7) in the scale, this indicated that they were ready to practice self-directed learning as their style of learning.

Results and Discussions

Demographic Profile

In this study, about half (50.2%) of the respondents come from Faculty of Communication and Media Studies followed by 30.5 per cent from Faculty of Information Management, and 19.3 per cent are from the Faculty of Office Management and Technology. About half (50.2%) of the respondents come from Faculty of Communication and Media Studies followed by 30.5 per cent from Faculty of Information Management, and 19.3 per cent are from the Faculty of Office Management and Technology. More than three-quarters (76.8%) of the respondents are female, while 23.2 % are male. The majority of them (82.9%) fall into the < 25 age grouping while those in the 25 - 29 age group and > 30 age group account for 15.9 per cent and 1.2 per cent of the sample respectively.

Reliability of the Research Instruments

The reliability of the scales is tested using Cronbach's alpha and the results of the Cronbach's alpha values for the eight components of readiness in self-

directed learning style ranges from 0.602 (openness to learning) to 0.842 (positive orientation to the future). It is concluded, therefore, that all the statements are consistent and thus reliable.

Levels of Readiness of Self-Directed Learning Style

The summary statistics for the individual statements for each of the eight components representing the levels of readiness of the respondents in self-directed learning style are shown in Table 1. The results showed that the respondents are ready for self-directed learning as the mean scores for all items exceed 5.0, except for two items under informed acceptance of responsibility of one's own learning. The statements are: (1) I like to be a leader in group learning situations (mean = 4.98); (2) In a classroom, I do not expect the teacher to tell all class members exactly what to do at all time (mean = 4.86). However, even though the means are slightly lower than 5, they are very close to 5 and hence on the average the respondents can be considered as ready for these aspects of self-directed learning.

Table 1: Levels of Readiness for Self-Directed Learning Style

Statement	Mean	Std. Deviation
1) POSITIVE ORIENTATION TO THE FUTURE		
1.1 I like to think about the future	6.11	1.00
1.2 I want to learn more so that I can keep growing as a person	6.07	0.97
1.3 I will never be too old to learn new things	6.02	0.95
1.4 I look forward to learning as long as I live	5.77	1.02
1.5 I can make myself do what I think I should	5.77	0.98
1.6 I think as problems as challenges, not stop signs	5.72	0.98
1.7 I try to relate what I am learning to my long term goals	5.61	1.04
Overall	5.87	0.71
2) LOVE OF LEARNING		
2.1 The more I learn, the more exciting the world becomes	5.89	0.95
2.2 I think learning is fun	5.83	1.12
2.3 I enjoy discussing ideas	5.65	1.04
2.4 The people I admire most are always learning new things	5.56	1.19
2.5 There are so many things I want to learn that I wish that there were more hours in a day	5.48	1.10
Overall	5.68	0.75
3) ABILITY TO USE BASIC STUDY AND PROBLEM SOLVING SKILL		
3.1 Learning how to learn is important to me	6.04	0.92
3.2 I'm happy with the way I investigate problems	5.50	0.98

continued

Table 1 – *continued*

3.3 I don't have any problem with basic study skills	5.37	1.13
3.4 I really enjoy tracking down the answer to a question	5.18	1.05
Overall	5.52	0.72
4) INFORMED ACCEPTANCE OF RESPONSIBILITY OF ONE'S OWN LEARNING		
4.1 If I don't learn, it's my fault	6.00	1.20
4.2 I am responsible for my learning - no one else is	5.89	1.07
4.3 No one but me is truly responsible for what I learn	5.79	1.05
4.4 I believe that thinking about who you are, where you are, and where you are going should be a major part of every person's education	5.64	1.13
4.5 A difficult problem doesn't bother me if I'm interested in something	5.42	1.15
4.6 In a learning experience, I prefer to take part in deciding what will be learned and how	5.35	0.99
4.7 I like to be a leader in group learning situations	4.98	1.29
4.8 In a classroom, I do not expect the teacher to tell all class members exactly what to do at all time	4.86	1.23
Overall	5.49	0.68
5) INITIATIVE AND INDEPENDENCE IN LEARNING		
5.1 I love to learn	5.90	1.04
5.2 I know what I want to learn	5.62	1.09
5.3 If there is something I want to learn, I can figure out a way to learn it	5.48	1.05
5.4 If I discover a need for information that I don't have, I know where to go to get it	5.41	1.01
5.5 If I have a great idea, I can develop a plan for making it work	5.40	1.03
5.6 I can work very well on my own	5.35	1.08
5.7 Understanding what I read is not a problem for me	5.16	1.15
Overall	5.47	0.75
6) CREATIVITY		
6.1 I have a strong desire to learn to learn new things	5.67	1.01
6.2 I like to try new things, even if I'm not sure how they will turn out	5.54	1.07
6.3 I have a lot of curiosity about things	5.34	1.13
6.4 I'm good at thinking of unusual ways to do things	5.19	1.08
Overall	5.43	0.79
7) OPENNESS TO LEARNING OPPORTUNITIES		
7.1 I'll be glad when I'm finished with learning	5.72	1.25
7.2 I'm interested in learning as some other people seem to be	5.69	1.02
7.3 I'm better than most people are at trying to find out the things I need to know	5.33	1.07

Table 1 – *continued*

7.4 I don't like dealing with question where there is no one right answer	5.13	1.34
7.5 If I can understand something well enough to get a good grade on a test, it doesn't bother me if I still have questions about it	5.12	1.13
Overall	5.40	0.73
8) SELF-CONCEPT AS AN EFFECTIVE LEARNER		
8.1 I learn several new things on my own each year	5.80	1.02
8.2 I know when I need to learn more about something	5.75	.97
8.3 I can tell whether I'm learning something well or not	5.38	1.03
8.4 I think learners are leaders	5.34	1.28
8.5 I am capable of learning for myself almost anything I might need to know	5.29	1.00
8.6 If there is something I have decided to learn, I can find time for it, no matter how busy I am	5.22	1.16
8.7 I am an effective learner in the classroom and on my own	5.20	1.03
8.8 I can think of many different ways to learn about a new topic	5.09	1.01
8.9 I can learn things on my own better than most people	5.00	1.15
Overall	5.34	0.70

The level of readiness for individual component and the overall level of readiness as represented by the respective mean scores are provided in Table 1. The overall mean score is 5.52, with a standard deviation of 0.61. The size of the mean score implies that, on the average, the respondents perceive themselves as being ready for self-directed learning style. The various statistics indicate that the mean score is representative of the majority of respondents.

By individual components, the respondents perceived themselves to be relatively most ready for the new learning style as they have a positive orientation towards the future (mean score = 5.87). This is followed by the fact that they love learning (mean score = 5.68); that they are able to use basic study to solve problem skillfully (mean score = 5.52); that they accept responsibility for their learning (mean score = 5.49); that they have the initiative and are independent in their learning (mean score = 5.47); that they are creative (mean score = 5.43); that they are open to learning opportunities (mean score = 5.40); and that they are effective self-concept learners (mean score = 5.34). The mean scores which are very close to their equivalent mean scores indicate that each mean score is representative of the majority of the respondents.

For further analysis, the overall mean score for each component and the overall mean score are first tested for normality and the results show that there is no evidence of departure from normality at the 5% level of significance for the overall mean score (p-value = 0.623). However, for the individual component, all except Component 4 (Informed acceptance of responsibility of one's own

learning) are significantly different from the normal distribution at the 5% level of significance but some are not significantly different from the normal distribution at the 1% level of significance. Also, since the sample size is relatively large, it is still justified to use the parametric tests for comparative purposes. Based on this rationale, comparisons are made by faculty using one-way ANOVA and the results are presented and discussed below.

Comparison in Readiness of Self-Directed Learning Style Among Faculties

The results of the analysis using ANOVA are presented in Table 2. For the overall level of readiness, on the average, the students perceive themselves as being ready for self-directed learning style regardless of the faculty they belong (mean scores > 5.0). However, the mean scores are statistically different from one another at the 1% level (p = 0.004 < 0.01). It is concluded, therefore, that students of OM (mean score = 5.72) are relatively the most ready for the new learning style than students of MC (mean score = 5.49) and students of IS (mean score = 5.45), in that order.

Table 2: Readiness in Self-Directed Learning Among Faculties

Components	Mean Score			Test Statistic	p-value
	IS	OM	MC		
1. Openness to learning opportunities	5.36	5.54	5.36	1.976	0.140
2. Self-concept as an effective learner	5.19	5.52	5.37	5.462	0.005**
3. Initiative and independence in learning	5.37	5.69	5.44	4.843	0.008**
4. Informed acceptance of responsibility of one's own learning	5.40	5.75	5.45	7.542	0.001**
5. Love of learning	5.66	5.88	5.62	3.571	0.029**
6. Creativity	5.31	5.52	5.48	2.459	0.087
7. Positive orientation to the future	5.88	6.10	5.77	6.704	0.001**
8. Ability to use basic study and problem solving skill	5.45	5.74	5.48	4.603	0.011**
Overall	5.45	5.72	5.49	5.639	0.004**

* Statistically significant at 5% level
** Statistically significant at 1% level

There are no differences between the three faculties in two components, namely, openness to learning opportunities and creativity (both with p > 0.05). However, there are differences in readiness between the three faculties with respect to the other six components and these are discussed as follows.

Self-Concept as an Effective Learner

The mean scores are statistically different at the 1% level ($p = 0.005 < 0.01$). It is concluded, therefore, that students of Office Management and Technology are more ready for self-directed learning style from the point of being an effective self-concept learner (mean score = 5.52) than students of Communication and Media Studies (mean score = 5.37) and students of Information Management (mean score = 5.19).

Initiative and Independence in Learning

The mean scores are statistically different at the 1% level ($p = 0.008 < 0.01$). It is concluded, therefore, that students of Office Management and Technology are more ready for self-directed learning style from the point of being independent in their learning and having initiative (mean score = 5.69) than students of Communication and Media Studies (mean score = 5.44) and students from Information Management (mean score = 5.37).

Informed Acceptance of Responsibility of One's Own Learning

The mean scores are statistically different at 1% level ($p = 0.001 < 0.01$). It is concluded, therefore, that students from Office Management and Technology are more ready for self-directed learning style with respect to the component informed acceptance of responsibility on one's own learning (mean score = 5.75) than those from Communication and Media Studies (mean score = 5.45) and those from Information Management (mean score = 5.40).

Love of Learning

The mean scores are statistically different at 5% level ($p = 0.029 < 0.05$). It is concluded, therefore, that students of Office Management and Technology are more ready for self-directed learning style from the point of love of learning (mean score = 5.88) than those from Information Management (mean score = 5.66) and those from Communication and Media Studies (mean score = 5.62).

Positive Orientation to the Future

The mean scores are statistically different at the 1% level ($p = 0.001 < 0.01$). It is concluded, therefore, that students of Office Management and Technology are more ready for self-directed learning style from the point of having a positive orientation to the future (mean score = 6.10) than students of Information Management (mean score = 5.88) and students of Communication and Media Studies (mean score = 5.77).

Ability to use Basic Study and Problem Solving Skills

The mean scores are statistically different at the 1% level (p = 0.011). It is concluded, therefore, that students of Office Management and Technology are more ready for self-directed learning style with respect to the ability to use basic study in solving problem skillfully (mean score = 5.74) than those from Communication and Media Studies (mean score = 5.48) and those from Information Management (mean score = 5.45).

Conclusions

On average, the students perceived themselves to be ready with self-directed learning style. By individual components, Positive orientation to the future is the component that the respondents feel to be relatively the most important in contributing to their readiness in self-directed learning style. This is followed, in descending order of relative importance, by love of learning, ability to use basic study and problem solving skills, informed acceptance of responsibility of one's own learning, initiative and independence in learning, creativity, openness to learning opportunities, and self-concept as an effective learner. This implies that the students from the three faculties are at the stage where they are ready for self-directed learning style.

The levels of readiness in the new learning style do differ between faculties. Students from the Faculty of Office Management and Technology are relatively the most ready for the learning style, followed by those from the Faculty of Communication and Media Studies and the Faculty of Information Management, in that order. This order of relative readiness also manifests in all the components of the measure of readiness, except in positive orientation to the future and love of learning where students of Communication and Media Studies are relatively least ready.

The research indicates that the students in this study in general are prepared to self-direct their own learning. This new learning style will bring changes from the traditional learning style. The new learning style will eventually promote discovery, with students constantly engaged in finding, organizing, analyzing and applying information in creative and novel ways to solve problems to the learning. It will acculturate the new generation of students to be more creative, innovative and productive.

Several directions for further research may be suggested from the results of the study. Future studies may also investigate on how to improve the readiness in self-directed learning styles among university students. The other future studies may investigate on how learner's attitude may affect readiness in selfdirected learning.

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