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A study on the assesment of undergraduate students' learning preference

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Abstract

This study aims at determining university students' levels of readiness for self- directed learning- that is to say, determining their lifelong learning preference- by using "Learning Preference Assessment Scale" (LPA scale) and finding out whether or not their prefences differ on the basis of gender, department of study, frequency of internet use, willingness to make a career, achievement perception, level of income, using computer skills, and belief in achievement in business life. The scale, having developed by Guglielmino (1991) and validity and reliability analyses performed by Atacanlı (2008) on Turkish sampling group, was regarded as a valid and reliable scale and was administered to 111 university students. Consequently, the students' readiness for self-regulated learning was found to be at average level. The findings obtained revealed that scores received from the LPA scale differed on the basis of gender, department of study, willingness to have academic career, and level of income.

Keywords: Lifelong learning; learning preference assessment; learning preference assessment scale; self-directed learning, self-directed learning readiness.

1. Introduction

Educational institutions aim to raise individuals who take on responsibility for their self-learning and who are lifelong learners. Self-learning individuals are able to retain lifelong learning. "Learning to learn" means being insistent on learning. Besides, it is also an individual's ability to regulate self-learning by carrying out effective time and knowledge management.This faculty refers to becoming conscious of learning needs and learning processes (how he learns) on the part of the individual, and overcoming the hurdles to hinder learning successfully by determining the learning opportunities. "Learning to learn" is the process of discovering learning. When understood well and used well, it is a whole of principles and skills which will help learners to learn more efficiently and will convert them into lifelong learning individuals. It is a thought in whose essence lies the view that learning may be learnt. Today, it is undisputed that proficiency of learning to learn is necessary for students' achievement to increase. Skills of learning to learn have made it necessary to employ information and communication technologies beside skills of reaching knowledge through various sources, and evaluating and using it. Adjusting to changes and learning capacity are the most valuable quality of working people, no matter what their jobs are (Demirel, 2009).

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1.1 Self-Directed Learning

Attempts were made to account for the concept of "self-directed learning" by various theorists through models that were mostly named after their own names. The models include such concepts as autonomous learning, self-orientation in learning, planned personal learning, and self-learning adult. Although confusion of concepts is available, this is still on the agenda in adult education, and is still important. A close study of field literature demonstrates that this concept leads lifelong learning skills. Candy (1988, 1991) believes that self- directed learning expresses a person's individual property or behaviour (individual autonomy), his independent learning effort which is performed outside the educational institution, planning of his learning in formal educational environment (learner's control), and skill of increasing and monitoring his learning (managing learning) (Boden, 2005).

In the literature on self-directed learning, some outhors focused on self-directed learning as a process while others examined the personal characteristics of the self-directed learners. Candy (1988, 1991) pointed out that in the research to this point, self-directed learning had been used to describe both a procass and personal characteristics of adult learner. Cany (1988, 1991) outlined the various dimensions of the self-directed learning process from the previous literature. Candy concluded that self-directed learning refferred to: (1) a personal quality or attribute (personal autonomy), (2) the independent pursuit of learning outside of an institutional setting (outodidaxy), (3) a way of orgnazing instruction in formal settings (learner-control), and (4) the willingness and ability to conduct one's own education (self-management). Guglielmino (1977) focusses on learners' readiness levels for self-directed learning. The author defines readiness for self-directed learning as "a whole of attitudes, values and proficiencies composing the probability of an individual's self-directed learning". And the properties affecting the level of readiness are the individual's independence, imagination, decisiveness, accepting responsibility for self-learning, discipline, curiosity, ability to independent learning, love of learning, focussing on the purpose, and problem solving skills.

Self-directed learning is a process in which students take the initiative to diagnose their learning needs, formulate learning goals, identify resources for learning, select and implement learning strategies, and evaluate learning outcomes. The role of the instructor shifts from being the "sage on the stage" to the "guide on the side" in a self-directed learning environment. Several things are known about self-directed learning: (a) individual learners can become empowered to take increasingly more responsibility for various decisions associated with the learning endeavor; (b) self-direction is best viewed as a continuum or characteristic that exists to some degree in every person and learning situation; (c) self-direction does not necessarily mean all learning will take place in isolation from others; (d) self-directed learners appear able to transfer learning, in terms of both knowledge and study skill, from one situation to another; (e) self-directed study can involve various activities and resources, such as self-guided reading, participation in study groups, internships, electronic dialogues and reflective writing activities; (f) effective roles for teachers in self-directed learning are possible, such as dialogu with learners, securing rosources, evaluating outcomes, and promoting critical thinking; (g) some educational institutions are finding ways to support self-directed study through open-learning programs, individualized study options, non-traditional couirse offerings, and other innovative programs (Hiemstra, 1994).

According to Candy (1991), different scholars have presented different perspectives on self-directed learning. Some scholars see self-directed learning as a process of organizing the instruction, focusing their attention on the level of learner autonomy over the instructional process. Others view self-direction as a personal attribute (e.g., Guglielmino, 1977) with the goal of education described as developing individuals who can assume moral, emotional, and intellectual autonomy (Song and Hill, 2007:28).

According to Guglielmino (1978), there are eight factors related to self-directed learning readiness: "love of learning, self concept as an independent learner, ability to handle risk, ambiguity, and complexity in learning, creativity, seeing learning as an ongoing lifelong process, taking the initiative in learning, understanding one's self, and being responsible for one's learning. These factors suggest that some personality factors may relate to self-directed learning". A highly self-directed learner 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 obstacles; 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, set an appropriate pace for learning, and develop a plan for completing work; one who enjoys learning and has a tendency to be goal-oriented. (Guglielmino, 2003)

1.2 Purpose of the Research

This research aims to determine university students' levels of readiness for self-directed learning; that is to say, their prefences for lifelong learning. For this purpose, answers to the following questions were sought:

1. What are the levels of university students' readiness for self-directed learning?
2. Do university students' levels of readiness for self-directed learning differ on the basis of gender, department of study, frequency of internet use, willingness to have a career, achievement perception, level of income, computer using skills, and belief in achievement in prospective business?

2. Method

2.1 Study Group

Survey method was used in this research since the aim was to determine university students' learning preferences and to analyse that in terms of several variables. The research was conducted with 111 final year students attending the faculty of Education of Yeditepe University in the 2009-2010 academic year.

Table 1. The Characteristics of Study Group

	f	%
Gender		
Female	83	74.77
Male	28	25.23
Department		
English Language Teaching	19	17.12
Mathematics Teaching	29	26.13
Counseling and Guidance	41	36.94
Turkish Language and Literature Teaching	22	19.82
Frequency of Internet Use		
Every day	83	74.77
Every other day	17	15.32
Once a week	7	6,31
Twice a moth	2	1.81
Once a month	2	1.81
Willingness to Make a Career		
Yes	66	59.46
No	13	11.71
Undecided	32	28.83
Achievement Perception		
Too weak	4	3.60
Week	6	5.41
Middle	19	17.12
Good	62	55.86
Very good	20	18.02
Level of income		
Too low	3	2.70
Low	4	3.60
Middle	31	27.93
Good	66	59.46
Very good	7	6.31
Computer Using Skills		
Too weak	11	9.91
Weak	5	4.51
Middle	29	26.13
Good	59	53.15
Very good	7	6.31
Belief in Achievement in Business Life		
Yes	36	32.43
No	38	34.23
Undecided	37	33.33
Total	111	100

2.2 Instrument

In order for individuals to evaluate their skills and attitudes concerning self-directed learning, Guglielmino developed a scale called "Self-directed Learning Readiness Scale" (SDLRS) in 1977. Following the first application, the researcher added 17 items 4 of which contained negative propositions to the scale which contained 41 items13 of which were negative propositions (Guglielmino, 1989). The scale, which was composed of 58 items, was changed as "Learning Preference Assessment" in 1991 by the author (quoted by Delahaye and Choy, 2000). The author points out that the average score for adults is 214± 25.59 (58-290), and that those who receive high scores from the test have higher levels of problem solving skills, creativeness, and change-biased behaviours. The LPA scale (Learning Preference Assessment) has been translated into 12 languages, used in more than 70 theses, and has preserved the property of most commonly used instrument of measurement in determining the levels of readiness for self-directed learning since it was developed. It was reported that the internal consistency coefficient of the scale (Cronbach alpha) was between 0.67 and 0.96 (Bonham, 1991).

The adaptation of the scale into Turkish was performed by Atacanlı (2008). The validity-reliability study of the scale composing the first part of the research was conducted with 296 students, and cronbach alpha (internal consistency) was found as 0.92 whereas pearson's correlation coefficient (test-retest reliability) was found as 0.83. The construct validity of the scale was tested through Gugliemino's structure of 41 items and confirmatory factor analysis; thus the fit values obtained were found to be above the limits. The second part of the research was conducted with 350 students composing the research sample; and cronbach alpha for LPA was found to be 0.93. for construct validity, the scale was compared with West and Bentley's (1990) and Hoban et al.'s (2005) models; and the fit values obtained were seen to be above the limits, thus it was decided that LPA was a valid and reliable instrument of measurement (Atacanlı, 2008). Similarly in this research, which was conducted with 111 university students, the internal consistency reliability of the scale was found to be 0.91,

3. Findings

3.1. What are university students' levels of readiness for self-regulated learning?

The students' levels of readiness for self-regulated learning were examined and the findings have been shown in Table 2.

Table 2. Descriptive Statistics Concerning the Scores Received from LPA

Learning P eference Assess ıent	N	Min.	Max.	$\bar{X}$	s
	111	57.00	64.00	12.10	2: 85

According to Guglielmino, scores received from LPA may be interpreted on the basis of values assigned to certain intervals of values (Atacanlı, 2007: 44). Accordingly, 58-176 is low, 177-201 is below average, 202-226 is average, 227-251 is above average, and 252-290 is high. Thus, on examining the scores received (Table 1), it is found that the lowest score is 157, the highest is 264, and that the scale average is 212.10. This value corresponds to the average svore interval. In other words, it was found that students' readiness for self-regulated learning was at average level.The study performed by Atacanlı (2007) also demonstrated that the score average received from the scale was 215,09± 24,77, and it was stated accordingly that the value corresponded to readiness for self-directed learning at "intermediate level". Besides, in Boden's (2005) study average scores received by 653 university students were found to be 226.5 ± 25.25.

3.2 Do the students' levels of readiness for self-regulated learning differ on the basis of gender, department of study, frequency of internet use, willingness to have career, achievement perception, level of income, computer using skills, and belief in achievement in business life?

The statistical analysis results of the scores received by students from the LPA scale are shown in Table 3.

Table 3. The Statistical Analysis Results of the Scores Received from the LPA According to Students' Properties

	Variables	N	$\overline{X}$	Ss	t/F
Gender	Female	83	216.11	23.65	3,25*
	Male	28	199.62	20.16	
Department	English Language Teaching	19	219.26	29.53	5,48*
	Mathematics Teaching	29	219.58	21.28	
	Counseling and Guidance	41	212.17	21.41	
	Turkish Language Literature Teaching	22	195.95	18.92	
Frequency of Internet Use	Every day	83	214.79	24.22	3,46
	Every other day	17	214.79	19.6	
	Once a week	7	194.28	13.08	
	Twice a month	2	166.5	3.53	
	Once a month	2	201	4.24	
Willingness to Make a Career	Yes	66	18.95	27.38	7,77*
	No	13	98.38	17.77	
	Undecided	32	03.56	19.89	
Achievement Perception	Too weak	4	207.75	37.86	1,76
	Weak	6	193.33	27.87	
	Midde	19	209.47	20.59	
	Good	62	216.46	23.32	
	Very good	20	207.6	22.56	
Level of Income	Too low	3	52.00	14.17	3,7*
	Low	4	88.75	30.95	
	Middle	31	11.58	22.74	
	High	66	12.98	21.75	
	Very high	7	02.42	29.89	
Computer Using Skills	Too weak	11	220.9	18.73	1,38
	Weak	5	208.8	24.65	
	Intermediate	29	204.79	22.37	
	Good	59	213.27	23.74	
	Very good	7	221.14	33.68	
Belief in Achievement in Business Life	Yes	36	205.45	18.79	1.53
	No	38	207.33	20.22	
	Undecided	37	206.12	19.24	

*p<0,05

As is clear from Table 3, scores received from LPA scale differ on the basis of gender, department of study, willingness to have career and the level of income.

A significant difference in favour of female students was found in terms of rediness for self-directed learning $[t = 3{,}25,\ p\langle 0{,}05]$. In the study of Reio (2004), gender had a statistically significant negative relationship with SDLRS. According to Reio, the findings of his reseach reflect the inconsistency of research findings concerning gender and level of self-directed learning readiness. Age was statistically and positively related to self-directed learning readiness, suggesting that the older participants were more likely to think of themselves as being self-directed, consistent with earlier research with these variables.

When considered in terms of department of study, it was found that Turkish Language and Literature students' average ($\overline{X}$:195,95) was the lowest whereas Mathematics students' average ($\overline{X}$:219,58) was the highest. The difference between departments stemmed from Turkish Language and Literature department students.

It was also found that there was a significant difference in willingness to make a career between the scores students received from the scale. The difference stemmed from the fact that students willing to make a career attained a higher average than other students. The score average for those students who would like to make academic career was ($\overline{X}$**:**218,95); the average for those who were undecisive was ($\overline{X}$**:**203,56) the average for those who were not willing to make academic career was($\overline{X}$**:**198,38). In addition to that, research conducted by Diker Coşkun (2009) also compared students' lifelong learning tendencies in terms of making an academic career, and significant differences were found. Accordingly, those students who were willing to make an academic career had the highest averages while those who were not willing had the lowest averages. Research conducted by Atacanlı (2007) also demonstrated that the LPA scores of students who would like to do academic career in the future were evidently higher than those of who would like to be specialist doctors or medical practitioners or who were undecided.

A significant difference was available between the students' score averages concerning their level of readiness for self-directed learning in terms of level of income ($F=3.70$ $p<0.05$). The difference stemmed from students who reported their level of income too low. The students with too low income level had the highest average ($\overline{X}$:252,00) while those with very high income level had the lowest average($\overline{X}$:202,42) . Besides, the study performed by Bekir Coşkun (2009) also compared students' lifelong learning bias with regard to their level of income, and found that the score averages of students with middle, low and too low levels of income were higher than those with high and very high levels of income. However, no significant differences were available between score avareages of students coming from families with differing income levels in the research done by Atacanlı(2007).

No significant differences were found between scores received from the LPA scale and frequency of internet use, achievement perception, computer using skills, and belief in achievement in business life. The relations of self-directed learning with several variables have been researched so far in studies conducted using LPA/SDLS, and differing findings have been obtained. In the study of Long and Agyekum (1988), the findings included a positive correlation between increasing age and higher SDLRS scores (as cited in Boden, 2005). In the study of Boden (2005), there was no significant difference between correlation between learner perception of self-directedness as measured by the SDLRS and the demographic variables of age, gender, race, marital status, parents' education level, and rural or urban residence. In studies done by Morris (1995) and Guglielmino (1987), differences in favour of female students were found in terms of gender, which suports the current research findings. However, nosignificant differences were found between the levels of income and learning preferences in Merriam and Caffarella's (1999) study (Atacanlı, 2007: 91).

4. Conclusion and Discussion

Self-direction in learning has been one of the most active streams of inquiry in adult education research in the US in the last 40 years and the attention to self-direction in learning, both in the United States and internationally, is unlikely to diminish. In fact, as globalization, technology, and societal change continue to escalate; self-directed learning becomes more essential to the success of individuals, their families, the organizations which employ them, and the societies in which they live. Continuous learning has become an indispensable tool for a satisfying and productive life (Guglielmino, Long & Hiemstra, 2004).

A strand of the self-directed learning research focused on the role of the learner's readiness for self-directed learning. Guglielmino (1977) developed the SDLRS to measure learners' perceptions of their readiness to engage in self-directed activities. A factor analysis of the instrument by Guglielmino (1977) identified the following eight factor: (1) openness to learning opportunities, (2) self-concept as an effective, independent 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. In practice, the SDLRS has been utilized as a diagnostic tool for assessing learners' perceptions of their readiness for self-directed learning.

Numerous experimental, quasi-experimental, and correlational studies have been conducted using the SDLRS. Correlational studies using the SDLRS investigated the relationship between learner perception of self-directedness and creativity, learning style, self-concept, locus of control, learning environment, life-satisfaction, healthy lifestyle, educational achievement, instructor ratings, cognitive interest, attitude toward mathematics, problem solving ability, and job performance (Boden, 2005).

This research aims to determine university students' levels of readiness for self- directed learning- that is to say, determining their lifelong learning preference- by using "Learning Preference Assessment Scale" (LPA scale) and finding out whether or not their preferences differ on the basis of gender, department of study, frequency of internet use, willingness to make a career, achievement perception, level of income, computer using skills, and belief in achievement in business life. The current research adapts a survey method.

The scale, having developed by Guglielmino (1991) and validity and reliability analyses performed by Atacanlı (2008) on Turkish sample group, was regarded as a valid and reliable scale. In this research this scale was applied to 111 university students. In consequence, it was found that the students' readiness for self-regulated learning was at average level. The findings demonstrated that scores received from the LPA scale differed on the basis of gender, department of study, willingness to make academic career, and level of income. On the other hand, no significant differences were found between LPA scale scores and frequency of internet use, achievement perception, computer skills, and belief in achievement in business life. This research aims to study students' learning prefences from the point of differing variables. In a similar vein, learning preferences adopted by students of differing faculties or of differing levels of learning, and by adults or by individuals of differing occupation groups could also be investigated.

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