ISSN: 0976-3031

Available Online at http://www.recentscientific.com

CODEN: IJRSFP (USA)

International Journal of Recent Scientific Research
Vol. 10, Issue, 05(C), pp. 32315-32317, May, 2019

International Journal of Recent Scientific Research

DOI: 10.24327/IJRSR

Research Article

DEVELOPMENT OF LEARNING PREFERENCE ASSESSMENT SCALE (LPAS) TO MEASURE SELF-DIRECTED LEARNING OF COLLEGE STUDENTS

Dr. Kulwinder Singh and Surriya Parveen

Department of Education and Community Service, Arts Block- 5, Punjabi University, Patiala-Punjab (147002)-India

DOI: http://dx.doi.org/10.24327/ijrsr.2019.1005.3443

ARTICLE INFO

Article History:
Received 4th February, 2019
Received in revised form 25th March, 2019
Accepted 23rd April, 2019
Published online 28th May, 2019

Key Words:

Development, Scale, Self-directed Learning, College Students

ABSTRACT

The aim of present study was to develop and standardize the scale to measure self-directed learning of college students. Self-directed learning is an offshoot of problem solving that connotes a process whereby individuals take responsibility for initiating and carrying out learning activities in an autonomous manner, without any guidance or prompt from significant others i.e. teachers, parents and peers. On the basis of review of related literature and tools used in previous researches, 55 items were constructed around 5 areas of self-directed learning namely self-management, self-control, love for learning, self-concept as an effective learner and initiative/independence and motivation in learning. After comments and suggestions of experts 49 items were selected for preliminary draft. After administration of scale on a sample of 300 college students item analysis was done, Only those items were selected in the final draft, which had comparatively higher mean score (i.e. ≥ 3) in case of high scoring group and at the same instance a lower mean score (i.e. ≤ 3) in case of low scoring group on 5-point Likert scale. On the basis of discriminative power 25 items were rejected and 24 items were retained in final draft of learning preference assessment scale. Internal consistency (Cronbach alpha) coefficient was found to be 0.80 and test-retest reliability coefficient on a sample of 82 college students was found to be 0.89 which is appreciably high. Content validity was established through comments/suggestions of experts during construction of items in the scale.

INTRODUCTION

The development of self-directed learning skills has become one of the primary goals of higher education in the last few decades. It increases the motivation of students to learn, since they are the makers of their own knowledge, they experience a sense of independence while learning. Brockett and Hiemstra (1991) stated that self-directed learning involves a process that focuses on the learners assessing their learning needs, securing the relevant learning resources and activities, conducting the planned learning activities and, consequently, assessing their resultant learning. It is fact that individuals, who take the initiative in learning, learn more things and learn better than who sit at the feet of their teachers passively waiting to be taught. Self-directed learning (SDL) is a method of instruction that can be defined in terms of the amount of responsibility the learner accepts for his or her own learning (Fisher *et al*., 2001).All individuals are capable of self-directed learning but the degree of development varies due to their individual differences. It is crucial that both teachers and learners have a clear understanding of the nature and concept of self-directed learning skills for its further development. In this context, teachers have a vital role to play in assisting students to attain the skills of self-directedness through building and maintaining a harmonious group relationship. Understanding and identifying how students learn, their ability to direct themselves in learning and their readiness to learn not only increases students' confidence in their own ability, but also improves their capacity to learn in novel situations.

Development of Scale

A number of instruments have been used in the field of educational and medical research to assess self-directed learning of students. The most widely used tool in educational and medical researches was Self-directed Learning Readiness Scale (SDLRS) developed by Guglielmino in 1977 comprising 58 items on a Likert-type scale around eight components; openness to learning opportunities, self-concept as an effective learner, initiative and independence in learning, informed acceptance of responsibility for one's own learning, love of

Corresponding author:* **Dr. Kulwinder Singh
Department of Education and Community Service, Arts Block- 5, Punjabi University, Patiala-Punjab (147002)-India

learning, creativity, positive orientation to future, ability to use basic study skills and problem-solving skills. In 1984 Lorys F. Oddi developed an instrument Oddi's Continuing Learning Inventory (OCLI) to measure self-directed learning in field of medical science. This inventory consisted of 24 items on four components pertaining to self-directed learning; learning with others, learner's motivation/self-efficacy/autonomy, ability to be self-regulating and reading avidity. Fisher *et al*. (2001) developed a 40-items scale to measure self-directed learning of nurses with three dimensions; self-management, desire for learning and self-control. Williamson (2007) developed 65-items self-directed learning scale around five components; awareness, learning strategies, learning activities, evaluation and interpersonal skills in the field of medical science. Shen *et al*. (2014) developed a self-directed learning scale containing 20 items on four components; learning motivation, planning and implementation, self-monitoring and interpersonal communication. The present study is an attempt to develop and standardize the scale to measure the level of self-directed learning among college students around five components namely self- management, self-control, love for learning, self-concept as an effective learner, initiative/independence and motivation in learning.

Preliminary Draft of Learning Preference Assessment Scale (Lpas)

Self-directed learning is an offshoot of problem solving that connotes a process whereby individuals take responsibility for initiating and carrying out learning activities in an autonomous manner, without any guidance or prompt from significant others i.e. teachers, parents and peers. In the present study self-directed learning construct woven around value components: self- management- self-management refers to the way in which learners can manage their own learning and effectively manage the learning resources that are available to them; self-control- it refers to the one's own ability to self-evaluate and as a result determine his/her own learning goals and outcomes; love for learning- positive feelings of learner about learning new things; self-concept as an effective learner- ability of individual to perceive himself/herself as an effective learner in the learning process and initiative/independence and motivation in learning- ability of learner to think, act and pursue their own studies autonomously, without the help and support of teachers and others.

A preliminary draft of 55 statements was prepared on the basis of review of related literature of self-directed learning and tools used in previous studies to measure the level of self-directed learning. The preliminary draft comprising of 55 items was given to experts in the field of Education and Psychology. The initial draft was then revised by giving due consideration to the suggestions/comments and feedback of experts. As a result some items of the scale were modified and some were deleted. Thus the preliminary draft of Learning Preference Assessment Scale consisted of 49 items around five components: self-management, self-control, love for learning, self-concept as an effective learner and initiative / independence and motivation in learning.

Table 1 Distribution of Items in Preliminary Draft of Learning Preference Assessment Scale

Sr. No.	Components of self-directed Learning	Items in the preliminary Draft	Total Items
1.	Self-management	1, 2*, 3, 4, 5*, 6, 7*, 8*, 9, 10, 11*, 12,	12
2.	Self-control	13, 14*,15,16*,17, 18*,19, 20*, 21	09
3.	Love for learning	22, 23*, 24, 25*, 26, 27, 28*, 29, 30, 31*, 32*, 33	12
4.	Self-concept as an effective learner	34, 35, 36*, 37, 38, 39*, 40, 41*,	08
5.	Initiative/ Independence and motivation in learning	42*, 43, 44*, 45, 46*, 47*, 48, 49	08
	Total Items	**49**	

Negatively worded statements

The items corresponding to different domains in preliminary draft of Learning Preference Assessment Scale were either semantically positive (28) or negative (21) and classified with regard to the components and nature of items.

Scoring Pattern

The items included in Learning Preference Assessment scale deal with different facets of learning process and students are required to respond on 5 points rating scale. In case of positively stated items scoring is to be done from 5 to 1 depending upon response varying from 'Strongly Agree' (5) 'Strongly Disagree' (1). The reverse scoring is to be done for negatively worded statements i.e. 'Strongly Agree' (1) to 'Strongly Disagree' (5). The range of scores was 49-245, with low scores indicating low level of self-directed learning and high scores showing high level of self-directed learning of students.

Selection of Items for Final Draft: Sample and Item Analysis

In order to develop tool to measure self-directed learning the preliminary try out was done on a representative sample of 300 college students of Malerkotla (Sangrur). The high and low scoring groups of college students were formed on the basis of P_{25} and P_{75} criterion by focusing the principle of item discrimination. As a result a group of 75 high and 75 low scoring participants were identified. Means and standard deviations, mean differences and t-value were calculated for each statement of the scale and are noted comprehensively in the tabular form as shown in the table 2

Table 2 The Item Wise Mean, SD, Mean Difference Along with t-value on High and Low Scoring Groups of Students in Preliminary Draft of Learning Preference Assessment Scale

Sr. No.	Item No.	High Group		Low Group		Mean Difference	t-value
		M	SD	M	SD		
(I)		**Self-Management**					
1	**1**	**4.42**	**0.52**	**3.64**	**1.22**	**0.78**	**5.49**
2	2	4.17	1.13	2.34	1.17	1.83	9.67
3	**3**	**4.36**	**0.84**	**3.61**	**1.24**	**0.75**	**4.30**
4	4	4.46	0.79	3.45	1.17	1.01	6.17
5	**5**	**3.88**	**1.29**	**2.30**	**1.13**	**1.58**	**7.90**
6	6	4.36	0.69	3.44	1.15	0.92	5.92
7	**7**	**3.21**	**1.39**	**2.26**	**1.04**	**0.95**	**4.69**
8	**8**	**2.13**	**1.05**	**2.17**	**0,99**	**-0.04**	**-0.23**
9	**9**	**4.53**	**0.66**	**3.70**	**1.33**	**0.83**	**4.80**
10	**10**	**4.50**	**0.60**	**3.61**	**1.32**	**0.89**	**5.31**
11	11	3.45	1.08	2.32	1.26	1.13	5.89

12	12	4.28	0.84	3.6	1.19	0.68	4.01
(II)				**Self-Control**			
13	**13**	**4.37**	**0.99**	**3.28**	**1.38**	**1.09**	**5.55**
14	14	3.98	1.28	2.61	1.49	1.37	6.02
15	**15**	**4.61**	**0.59**	**3.82**	**1.16**	**0.79**	**5.20**
16	16	3.93	1.16	2.41	1.07	1.52	8.28
17	17	4.30	0.85	3.45	1.39	0.85	4.51
18	**18**	**4.16**	**0.93**	**2.37**	**1.12**	**1.79**	**10.60**
19	19	4.45	0.94	3.24	1.23	1.21	6.73
20	20	3.90	1.12	2.74	1.30	1.16	5.81
21	21	4.33	0.82	3.53	1.21	0.8	4.72
(III)				**Love for learning**			
22	22	4.76	0.46	3.64	1.31	1.12	6.97
23	**23**	**3.41**	**1.19**	**2.77**	**1.41**	**0.64**	**2.99**
24	**24**	**4.74**	**0.43**	**3.62**	**1.44**	**1.12**	**6.40**
25	25	3.82	1.13	2.77	1.15	1.05	5.63
26	**26**	**4.26**	**1.06**	**3.46**	**1.23**	**0.8**	**4.24**
27	27	4.70	0.51	3.66	1.30	1.04	6.40
28	28	3.90	0.98	2.32	1.09	1.58	9.32
29	29	4.49	0.57	3.49	1.37	1	5.79
30	**30**	**4.62**	**0.56**	**3.82**	**1.04**	**0.8**	**5.83**
31	31	4.42	0.59	2.10	1.33	2.32	13.77
32	32	3.94	1.03	2.38	1.30	1.56	8.10
33	**33**	**4.46**	**0.82**	**3,85**	**1.17**	**0.61**	**3.70**
(IV)				**Self-Concept as an Effective Learner**			
34	**34**	**4.17**	**0.77**	**3.58**	**1.27**	**0.59**	**3.40**
35	35	4.4	0.54	3.32	1.11	1.08	7.52
36	**36**	**4.29**	**0.74**	**2.29**	**1.08**	**2**	**13.11**
37	**37**	**4.01**	**1.01**	**3.69**	**0.99**	**0.32**	**1.94**
38	**38**	**4.42**	**0.91**	**3.84**	**1.16**	**0.58**	**3.42**
39	39	4.21	0.99	2.6	1.27	1.61	8.66
40	**40**	**4.30**	**0.65**	**3.54**	**1.44**	**0.76**	**4.12**
41	**41**	**3.93**	**1.06**	**2.6**	**1.26**	**1.33**	**6.97**
(V)				**Initiative/ Independence and Motivation in Learning**			
42	42	3.69	1.26	2.10	1.08	1.59	8.25
43	**43**	**4.14**	**0.80**	**3.53**	**1.01**	**0.61**	**4.10**
44	44	4.24	0.94	2.38	1.37	1.86	9.63
45	45	4.12	0.75	3.38	1.29	0.76	4.24
46	**46**	**3.72**	**1.18**	**2.77**	**1.27**	**0,95**	**4.70**
47	**47**	**2.93**	**1.29**	**2.41**	**1.26**	**0.52**	**2.48**
48	48	4.17	0.87	3.32	1.15	0.85	5.10
49	**49**	**4.13**	**1.22**	**3.73**	**1.22**	**0.4**	**2.00**

Bold items no. are the items deleted.
** p<0.01

The items with high discriminating power were selected as per the norms of item analysis. Only those items were selected which had comparatively higher mean score (i.e. ≥ 3 on a scale of 1-5) in case of high group and at the same instance a lower mean score (i.e. ≤ 3) in case of low group. Therefore, 25 items were deleted and 24 items were included in final draft of learning preference assessment scale. The distribution of items in each subscales included in the final draft is shown in the table 3

Table 3 Distribution of Items in Final Draft of Learning Preference Assessment Scale

Sr. No.	Components of self-directed learning	Items in the preliminary Draft	Total Items
1.	Self-management	2*(5), 4(2), 6(13), 11*(8), 12(20)	05
2.	Self-control	14*(14), 16*(24), 17(22), 19(7), 20*(21), 21(1)	06
3.	Love for learning	22(12), 25*(23), 27(19), 28*(3), 29(15), 31*(6), 32*(18),	07
4.	Self-concept as an effective learner	35(16), 39*(9),	02
5.	Initiative/ Independence and motivation in learning	42*(11), 44*(17), 45(4), 48(10).	04
	Total Items	**24**	**Items**

Note: Sr. no. of items in brackets show their position in final draft of the scale
* Negatively worded statements

The final draft of the scale has 12 positively worded statements and 12 are negatively worded. The range of scores are 5-25, 6-30, 7-35, 2-10, 4-20 and 24-120 respectively.

Reliability and Validity of Learning Preference Assessment Scale

The content validity of scale was established during items construction in the preliminary draft. The scale was presented to experts in the field of Education and Psychology to get feedback and seek their advice in terms of content, language and communication efficacy of the statements. Based on their suggestions/comments and recommendations, the statements were modified accordingly and some of these were rejected.

Cronbach alpha was calculated to attain the internal consistency of the scale which was found to be .80. Further, test-retest reliability method was employed to find out the stability of scale. The final draft of learning preference assessment scale was applied on 82 college students twice with a gap of three weeks. The 'r' value of scale has been found to be 0.89 which revealed that the scale is highly reliable.

Conclusion and Further Direction

Self-direction is the basis of all type learning. In such learning students take responsibility for their own learning over and above responding to instruction. This scale could be useful for both teachers and students to attain an overall picture of learners' self-direction in learning process. Further validation of scale is required in order to develop a high quality scale. It should be applied in various research attempts and for different samples on different occasions, and validity and reliability studies should be conducted which will contribute not only to the scale but also to the field considerably as studies may be conducted to develop self-directed learning scale by using large sample of school students, university students and professional students so that the results may be generalized. Therefore, more research work need to be done on different samples that will be beneficial for the reliability and validity of the scale.

References

Fisher, M., King, J., & Tague,G. (2001). Development of self-directed learning readiness scale for nursing education. *Nurse Education Today*, 21, 526-516.

Brockett, R.G., Hiemstra, R. (1991). *Self-direction in Learning: Perspectives in Theory, Research, and Practice*, Routledge, London.

Garrett H.E. (2005). *Statistics in Psychology and Education.* Paragon International Publications, New Delhi.

Guglielmino, L.M. (1977). *Development of the self-directed learning readiness scale* (Unpublished Ph.D. thesis). University of Georgia, *Dissertation Abstract International*, *38*(11a), 6467.

Koul, L. (2009). *Methodology of Educational Research.* Vikas Publishing House Pvt. Ltd., India.

Oddi, L. F. (1984). Development of an instrument to measure self-directed continuing learning. *Dissertation Abstracts International*, 67(01A), 70.

Shen, W.Q., Chen, H.L., & Hu, Y. (2014). The validity and reliability of the self-directed learning instrument (SDLI) in mainland Chinese nursing students. *BMC Medical Education,* 14(1), 108.

Williamson, S.N. (2007). Development of a self-rating scale of self-directed learning. *Nurse Researcher,* 14(2), 66-83.