

Learning Style Inventory (LSI)

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Abstract

The study was conducted with a purpose to construct learning style inventory to assess the learning styles of secondary school students. At the first step, 60 items were drafted and released for the expert's opinion to judge the worth of each item. After modification the initial draft 45 items was administered to 200 secondary school students from various schools of Kashmir division of J&K state. After item analysis the scale was further confined to 30 items. The major types of validity i.e content validity and concurrent validity were used to ensure the validity of the Learning style inventory. In order to find out reliability of the test Split half method and test-retest method was employed.

Key words: Learning Style, Secondary School Students, Kinaesthetic Style

Introduction

Humans have their own natural or habitual pattern of acquiring and processing knowledge in learning situations. The common ways through which people learn are known as their learning styles. Individuals differ the way they learn. The idea of individualized learning styles was initiated in 1970s and it has much influence on education.

As everyone is different from others, learning style is bound to vary. Therefore the knowledge about learning styles is important for many reasons. Teachers may use different techniques in an effective way to teach according to the learning styles. Being aware of learning styles of their students, psychological qualities and motivational differences teachers can regulate the teaching-learning process in desirable direction.

The review of the related literature reveals that learning style plays an important role in the academic success of the students.

Agrawal and Chawla (2005) revealed that the Co-operative Learning Strategy Based Material was effective in improving the level of academic achievement.

Erton (2010) studied the relationship between personality traits, language learning styles and success in foreign language achievement. Maudsley's Personality and BLSI instruments were used in the study. The findings revealed that there was no significant relationship between the personality traits (introversion-extroversion) of the learners in their foreign language achievement. It was also concluded that students with visual leaning style were most successful as compared to the students with other learning styles. Abidin, *et al.* (2011) studied learning styles and academic achievement in a specific educational system. It was concluded that the high, moderate and low achievers have a similar preference pattern of learning.

Methodology

This learning style inventory (LSI) has been designed to assess the learning styles of secondary school students. At the first step, 60 items were drafted by analysing books, research papers, theses, internet resources and other materials. Apart from it various experts including teachers, principals and educational administrators were consulted for the collection of valid information. The prepared draft was then released for the expert's opinion to judge the worth of each item.

Based on the suggestions and remarks, some of the items were modified and some omitted. As a result the initial draft of LSI contained 45 items. This inventory assesses three learning styles namely Audio, Visual and Kinaesthetic learning styles.

Try out

The initial draft of (Learning style inventory) LSI was administered to 200 secondary school students from various schools of Kashmir division of J&K state. After receiving response sheets from the students scoring was done.

Item analysis

In order to make inventory homogeneous Item analysis of the inventory was done using Pearson Product Moment Correlation Technique. The items having correlation of less than and equal to 0.30 with the total test were omitted. Total of 15 items were eliminated from the initial draft making the number of items of the inventory 30.

S.No	Coefficient of Correlation	S.No	Coefficient of Correlation
1	0.41	24	0.15*
2	0.62	25	0.60
3	0.44	26	0.09*
4	0.66	27	0.40
5	0.02*	28	0.48
6	0.54	29	0.21*
7	0.35	30	0.68
8	0.66	31	0.29*
9	0.21*	32	0.59
10	0.48	33	0.50
11	0.67	34	0.26*
12	0.06*	35	0.39
13	0.46	36	0.11*
14	0.51	37	0.66
15	0.28*	38	0.19*
16	0.67	39	0.53
17	0.15*	40	0.62
18	0.62	41	0.53
19	0.43	42	0.28*
20	0.51	43	0.38
21	0.22*	44	0.63
22	0.58	45	0.11*
23	0.56		

In order to eliminate the effect of eliminated items, correlation between the scores of remaining items and total score was again computed. It was found that correlation of remaining items with the total score was above 0.46

Reliability

In order to find out reliability of the test Split half method was employed. The split half reliability coefficient was found by dividing the scores into odd and even groups. The final Learning styles inventory was administered on 200 secondary school students to calculate the reliability of the test. The coefficient of correlation thus obtained was 0.82

The Test-retest reliability was also employed to find out the reliability of the learning style inventory. The final format of learning style inventory was employed on 200 students at the interval of 30 days. After scoring the coefficient of correlation between the scores obtained on two administrations was calculated. The coefficient of correlation was found to be 0.87

Validity

The major types of validity i.e content validity and concurrent validity were used to ensure the validity of the Learning style inventory. Content validity of the test was ensured through logical analysis of the experts. Concurrent validity of the test was found by using another scale namely Learning Style Questionnaire developed at University of California, Merced Student Advising and Learning Center and the validity coefficient was found to be 0.81

Scoring Procedure

The table below represents the items divided into three categories namely Auditory, Visual and kinaesthetic. Assign the following point values for each question: Always-3, Sometimes-2, Never-1

Auditory		Visual		Kinaesthetic	
Item No.	Pts	Item No.	Pts	Item No.	Pts
2		1		3	
5		4		6	
7		8		10	
9		12		11	
13		14		16	
15		18		20	
17		19		23	
21		22		24	
26		27		25	
29		30		28	
Total Score:		Total Score:		Total Score:	

Now add the points of the three sections separately and record below. The maximum score in any section will determine the preferred learning style.

Annexure-I
Learning Style Inventory (LSI)

Please fill up the following information:

Name Gender

Name of the school Class

This questionnaire is drafted to identify your preferred learning style. Read each sentence carefully and indicate how often the sentence applies to you by responding to all the questions accordingly.

Please answer all the statements.

(Your answers will be kept confidential)

S.No.	Statements	Always	Sometimes	Never
1.	I understand better when the information is presented with the help of visual aids.			
2.	I like to remember things by hearing rather than seeing or reading.			
3.	I prefer learning by direct involvement rather by listening or writing only.			
4	In order to be focussed in the class, looking at the teacher while listening helps me a lot.			
5.	I learn to spell better by repeating the words loudly.			
6.	I like to move a lot when I am studying.			
7.	I better understand news by listening rather than by reading.			
8.	If I had to remember list of items, I remember it best if it is written.			

9	I best obtain information on any subject by listening rather than reading.			
10.	It helps me to understand the solution if someone else does it first.			
11.	For description to others, I use gestures and movements.			
12.	While remembering anything, I try to get a picture of it in my mind.			
13.	I am at ease solving a problem by talking myself about it.			
14.	It makes me feel better to work in a quiet place.			
15.	I am good at discussing any topic orally rather than writing on it.			
16.	I enjoy, learning by doing method of teaching.			
17.	I listen to the people's point of view before giving my own.			
18.	Seeing things to remember is better than hearing.			
19.	Written directions make me feel better than hearing.			
20.	I prefer teachers who use real life examples to explain things.			
21.	I am good at remembering names but I forget faces easily.			
22.	I like to use coloured highlighters to colour code texts and notes.			

23.	I like to participate in Seminars, group presentations, student interactions and dialogues.			
24.	I remember best how to do things after I have done them at least once.			
25.	I feel bored studying on a desk.			
26.	I lose concentration easily when it is noisy			
27.	While in class, I like to take notes.			
28.	To memorise information, I close my eyes and write the information in the air on a surface with my finger.			
29.	I whisper and murmur while reading.			
30.	I recognise words by sight rather by listening repeatedly.			

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