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Higher Secondary Commerce Students' Learning Styles and Academic Achievement

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Abstract

This research study seeks to gain a better understanding of the learning styles of students enrolled in higher secondary commerce programmes as well as the influence that these styles have on students' overall academic performance. The researcher decided to use the descriptive survey approach in order to accomplish this goal. The resources that are used for data gathering include the student's academic achievement and a learning style questionnaire that was designed by the student themselves. Students attending higher secondary commerce schools and colleges in the Samastipur District of the state of Bihar in India make up the target population. A stratified random sampling approach was utilised to choose participants for the study, and a total of one hundred students from the higher secondary commerce curriculum were used as the sample. The analysis of the data consisted of using mean, standard deviation, the t-test, and df. According to the findings of the study, the learning styles of pupils in higher secondary commerce are not set in stone. Some students have what's known as a global learning style, while others have something called a sequential learning style, still others have a reflective learning style, and still others have an active learning style.

***Key words:** Learning style, Academic Achievement, Commerce Stream, Higher Secondary, Samastipur District*

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Introduction

Education is the basic elements of human development. It is like human knowledge and activities through which individual innate abilities evolve in the right direction and increase knowledge. Through education it is possible to awaken, nurture and organise the hidden talent and abilities in a person's personality and enable the individual to play an active role in social life, so that the whole society can be enlightened through educated individuals. Because the world is changing very fast and the needs of the people are also increasing. This change is not happening only in just one sector but also in different sectors. There is also a sector of trade in these different sectors. It is an essential factor in the progress of every nation's economy and society. Trade is taking place not just in one country but in all countries in the world. Many countries are doing business with one another. Various national and international companies are doing business among developed and developing countries and these national and international companies need human resources with different skills to run their business, such as executive officer, general manager, supervisor, foreman etc. All of them need education and training to do this job well. An education in commerce is essential to running a successful firm. The calibre of the workforce has a direct bearing on the level of commercial success. Individuals receive the training they need to acquire the conceptual and management skills necessary to successfully run a firm through the provision of commerce education. When students study something or learn something, their learning style play crucial role in this process, because every student learning style is different of each other. This learning style is profound effect on academic achievement.

Review of the related literature

Research conducted by Theverma (2002) looked at the relationship between the learning styles of 406 female students and their academic achievement as well as various demographic characteristics. Women students at government institutions performed better than their male counterparts in terms of the participants' preferred learning method. Understanding these data permits this. Students majoring in the arts were more likely to use the collaborative learning method than science students majoring in the arts.

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Vyas (2002) conducted an investigation with the purpose of determining the learning styles, mental abilities, academic performances, and other ecological factors of 545 female undergraduates. The findings showed that there was no significant difference between the academic achievements of art students and scientific students. In addition, there was a substantial disparity between the types of learning styles and academic performance.

Singh et al. (2011) conducted a study with the objective of determining the learning styles of 317 students and their overall academic accomplishment in a particular educational setting. The study's primary findings showed that there was a substantial association between learning style and overall academic accomplishment. The study also showed that low, medium, and high achievers all have similar performance levels across all learning styles.

Thakkar (2014) conducted a study to determine the effect of different learning styles on the academic achievement of 1580 senior secondary school students in Ahmadabad. It was shown that students did not choose to study in a dependent or collaborative manner, and furthermore, the results showed that the manner of learning may not effect learning achievement, but that learning achievement is affected by the system of testing.

Babu (2015) aimed at defining learning style of 600 secondary school students. Learning style inventory was developed by Karuna Shankar Mishra.The main findings of the were found to be learning style better through figures than verbal and also seem to be better in responding learning than constructive learning.

A study was conducted by Chaudhary et al. (2016) on 597 students from six medical colleges in Pakistan to investigate the association between academic achievement and the preferred learning method. The findings indicated that there was no discernible difference in terms of academic achievement between the various learning styles.

Models of Learning Style

Students have varying learning styles, which may be defined as their individual qualities, strengths, and preferences about the manner in which they take in and process knowledge. However, efficient functioning in any professional role demands being able to work effectively

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in all learning styles. Models of learning styles make certain that the educational requirements of pupils falling into each category are satisfied at least some of the time.

Felder-Soloman Learning style Model

Students are placed into one of six categories according to this model: active learners, reflective learners, sequential learners, global learners, visual learners, or verbal learners, sensing learners, or intuitive learners.

Active and Reflective learners

Learners who engage in active learning have a greater tendency to retain and comprehend material better as a result of the activities they engage in with it, such as discussing it, applying it, or explaining it to others. Learners who are reflective often find it helpful to reflect privately at first. It is the phase of an active learner to say, "Let's try it out and see how it works," while the response of a reflective learner is to say, "Le's think it through first." Active learners have a greater propensity to like working in groups than reflective learners, who are more comfortable working alone. Active learners have a more difficult time than passive learners when they are required to sit through lengthy lectures without receiving the opportunity to do anything physical other than take notes.

Sequential and Global Learners

People who learn in a sequential fashion typically do so in a series of linear steps, with each step logically following on from the one that came before it. People who learn globally tend to learn in large chunks at once, taking in information virtually at random without recognising any links, and then all of a sudden "getting it." When solving mathematical problems, sequential learners typically follow logical stepwise paths in order to find solutions, whereas global learners frequently just see the solution, but then have to battle to figure out the steps to get there. Sequential learners are more likely to follow a stepwise approach. People who learn in a sequential fashion could know a lot about certain parts of a subject, but they might struggle to relate that knowledge to other aspects of the same subject or to features of other subjects. Once

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they have a firm grasp of the big picture, global learners may be able to solve tough issues quickly or put items in creative ways, but they may have difficulty describing how they accomplished either of these things. People that learn in a sequential fashion typically focus their efforts on completing one task at a time, while students who are learning about the world want to work on several projects at once.

Visual and Verbal learner

People that learn best through seeing things like drawings, diagrams, flow charts, time lines, films, and demonstrations are considered visual learners. Learners of verbal language benefit more from explanations that are both spoken and written. When information is provided verbally as well as graphically, everyone gains a greater understanding of the material.

Sensing and Intuitive Learners

Learners who rely on their senses are more likely to like acquiring new facts, whereas learners who rely on their intuition are more likely to favour uncovering new possibilities and connections. Intuitor's like to innovate but don't like to repeat themselves as much as sensor's do. Sensors like to solve problems using well-established approaches rather than complicated or unexpected ones. Sensors are more likely than intuitive thinkers to feel slighted when they are assessed on subject matter that has not been specifically addressed in the classroom. Intuitor's may be better at understanding new concepts and are frequently more comfortable than sensor's with abstractions and mathematical formulations. Sensor's tend to be patient with details and adept at memorising data and undertaking hands-on (laboratory) work. Intuitor tendencies include being able to work more quickly and creatively than sensor tendencies, which include being more realistic and careful in one's approach.

Objectives of the study

- To explore the learning styles of higher secondary commerce students.
- To determine the level of academic achievement of higher secondary commerce boys and girls.

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- To determine the relationship between learning style and academic achievement of higher secondary commerce students.
- To determine the significance difference in learning style between rural and urban higher secondary commerce students.
- To determine the significance difference in academic achievement between rural and urban higher secondary commerce boys and girls.
- To determine the significance difference in learning style between higher secondary commerce boys and girls.
- To determine the significance difference in academic achievement between higher secondary commerce boys and girls.

Hypotheses

- There is no set standard of learning style of higher secondary commerce students.
- There is no set standard level of academic achievement of higher secondary commerce boys and girls.
- There is no relationship between learning style and academic achievement of higher secondary commerce students.
- There is no significance difference in learning style between rural and urban higher secondary commerce students.
- There is no significance difference in academic achievement between rural and urban higher secondary commerce students.
- There is no significance difference in learning style between higher secondary commerce boys and girls.
- There is no significance difference in academic achievement between higher secondary commerce boys and girls.

Methodology of the Study

The researcher decided to use the survey approach in order to acquire the necessary data for this investigation. Using the stratified random selection technique, the researcher chose one hundred students from higher secondary commerce programmes at schools and colleges located

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in the Samastipur District of Bihar in India. The instruments that are utilised include the Learning Style and Academic Achievement inventory that was produced by the individual themselves. The data are analysed using the mean, standard deviation, the t test, and the df.

Analysis of Data

Table-1: demonstrates the dimensions of higher-level commerce students' learning styles.

S.No	Areas/Dimensions	Serial No. Of items	Total No. Of Items in each dimensions
1	Global Learner	1,4,7,12,15,17,21,24,26	9
2	Sequential Learner	2,8,11,14,16,18,25,28	8
3	Active Learner	5,13,22,23,27,29	6
4	Reflective Learner	3,6,9,10,19,20,30	7
	Total		**30**

Table-2: displays the total number of objects in the final scale dispersed across the various dimensions and with their serial numbers.

S. No.	Dimensions	Sl. No. of Items	Total number of items in each Dimensions
A	Accountancy		
1	Introduction of Accounting	1,2,3,4	4
2	Theory Base of Accounting	5,6,7,20	4
3	Recording of Transaction	8,9,10,11,12, 13,14	7
	Trail Balance and Rectification of Error	15,16	2

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5	Depreciation, Provisions and Reserve	17,19	2
6	Financial statements	21,22	2
7	Accounting for Bills of Exchange	18	1
8	Computer in Accounting	23	1
	Total (A)		23
B	Business Studies		
9	Nature an purpose of Business	24,25,26,27, 28	5
10	Business Service	32,33,34	3
11	Private, Public and Global Enterprise	29,30,31	3
12	Emerging modes of Business	35,36,37	3
13	Social Responsibility of Business and Business Ethics	38,39	2
14	Formation of a Company	40,41	2
15	Small Business	42	1
	Total (B)		**19**
	Total (A+B)		**42**

Table-3: Higher Secondary Commerce Students' Learning Styles

Variable	**Global**		**Sequential**	
Learning Style	N	%	N	%
	15	15	28	28

Variable	**Active**		**Reflective**	
Learning Style	N	%	N	%
	37	37	20	20

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The table-3 reveals that the 15% students are following the global learning style and 28% students are following the sequential learning style. While 37% students are following the active learning style and 20% students are following the reflective learning style.

Table-4: Academic Achievement of Boys and Girls in Higher Secondary Commerce

Variables	**No. of Students**	**Low**	**Average**	**High**	**Total**
Boys	50	18%	64%	18%	100%
Girls	50	16%	64%	20%	100%
Total	**100**				

The data showed in the table-4 is revealed that the 18% boys have low, 64% boys have average and 18% boys have high level of academic achievement. While the 16% girls have low, 64% girls have average and 20% girls have high level of academic achievement.

Table-5: Relationship between Academic Achievement of Higher Secondary Commerce Students and Learning Style

Variables	**Mean**	**SD**	**Df**	**Co-efficient of co-relation**	**Remarks**
Learning Style	49.95	4.13	98	-0.034	Not Significant
Academic Achievement	28.72	4.23			

The table-5 reveals that the mean of learning style is 49.95 and SD is 4.13, while mean of academic achievement is 28.72 and SD is 4.23 and df value is 98. The co-efficient of correlation is found -0.034, which is not significant.

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Table-6: Significant differences in learning styles between rural and urban higher secondary commerce students

Variables	No. of Students	Mean	SD	df	t- value	Table value	Remarks
Rural	50	50.6	3.78	98	1.65	1.98	Not Significant
Urban	50	49.24	4.48				

The table-6 reveals that the mean of rural students learning style is 50.6 and SD is 3.78, while the mean of urban students learning style is 49.24 and SD is 4.48 and df value is 98. The t-value is found 1.65, which is not significant.

Table-7: Academic Achievement Differences Between Rural and Urban Higher Secondary Commerce Students

Variables	No. of Students	Mean	S D	df	t- value	Table value	Remarks
Rural	50	28.16	4.65	98	0.50	1.98	Not Significant
Urban	50	29.28	3.73				

The table-7 reveals that the mean of rural student's academic achievement is 28.16 and SD is 4.65, while the mean of urban student's academic achievement is 29.28 and SD is 3.73 and df value is 98. The calculated t-value is found 0.50, which is not significant.

Table-8: Significance difference between boys & girls Higher Secondary Commerce Students Learning Style

Variables	No. of Students	Mean	SD	Df	t- value	Table value	Remarks
Boys	50	49.5	4.30	98	1.07	1.98	Not Significant
Girls	50	50.4	3.99				

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The table-8 reveals that the mean of boys learning style is 49.5 and SD is 4.30, while the mean of girls learning style is 50.4 and SD is 3.99 and df value is 98. The calculated t-value is found 1.07, which is not significant.

Table-9: Significance difference between boys & girls Higher Secondary Commerce Students Academic Achievement

Variables	No. of Students	Mean	SD	df	t- value	Table value	Remarks
Boys	50	27.08	4.0	98	4.20	1.98	Highly Significant
Girls	50	30.36	3.83				

The table-9 reveals that the mean of boy's academic achievement is 27.08 and SD is 4.0, while the mean of girl's academic achievement is 30.36 and SD is 3.83 and df value is 98. The calculated t-value is found 4.20, which is highly significant.

Major Findings

- There are 37% of active learners among commerce students in higher secondary school, 28% of sequential learners, 20% of reflective learners, and 15% of global learners.
- 18% of the boys in higher secondary commerce have a low academic achievement, 64% of the boys have an average academic achievement, and 18% of the boys have a high intellectual achievement. In the higher secondary commerce course, 16% of the females have low academic achievement, 64% of the girls have average academic achievement, and 20% of the girls have outstanding academic achievement.
- The coefficient of correlation between the learning style of students in higher secondary commerce and their academic accomplishment is -0.034, which is a value that does not meet the criteria for significance.

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- The learning preferences of higher secondary commerce students from rural and urban locations are not significantly different. Students from both rural and urban locations who study business in higher secondary school have similar learning habits.
- There is not a discernible gap in the academic performance of students studying commerce at the higher secondary level who come from either urban or rural environments.
- The learning styles of pupils in higher secondary commerce do not significantly differ from those of their female counterparts.
- There is a considerable gap between the level of academic success attained by male and female students majoring in commerce during their time in higher secondary school.

Conclusion

The findings of the current research study indicate that students of higher secondary commerce do not all learn in the same way. Instead, some students learn in a global style, some students learn in a sequential style, some students learn in an active style, and other students learn in a reflective manner. There is no single learning style that all students use. There is very little difference between the educational accomplishments of boys and girls and there is also very little difference in the learning style and educational pattern that is followed by the two sexes. In a similar vein, there is not a significant difference between students from rural and urban areas in terms of the educational approach they take or their academic accomplishment. On the other hand, there was found to be a substantial difference between the academic achievement of boys and girls. Therefore, it is abundantly obvious that various pedagogical approaches each have their own significance in terms of the impact they have on the academic success of students enrolled in higher-level commerce education.

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