Enhancing Achievement in Commerce of Higher Secondary School Students through Self-Directed Learning

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ARTICLE DETAILS	ABSTRACT
Research Paper	Self-directed learning is a method by pupil's plan, carry out, and monitor their learning. Since it has been used for many centuries as a means of helping students grow their skills and abilities while also being dedicated to their desires, abilities, and capabilities.. Students who learn autonomously are more involved in their academics and develop stronger social, collaboration, management, and research abilities. It highlights how important good judgment and time management are and that it is students' responsibility to create and meet their own deadlines and goals. In this study, the investigator intends to enhance achievement in commerce of higher secondary school students through self-directed learning. The investigator used the experimental method, pre-test post-test non-equivalent design was employed, and 120 higher secondary commerce school students was selected for the present study. For higher secondary commerce students, the investigator developed a self-directed learning package based on the Garrison model. An achievement test in commerce was administered to determine whether a self-directed learning package effectively enhanced the achievement in commerce of higher secondary school students. The study's findings revealed that a self-directed learning package in commerce effectively enhances achievement in commerce
Keywords : *Self-directed Learning, Enhancing, Achievement in Commerce, Garrison model of Self-directed Learning, Higher secondary School Students*	

of higher secondary school students. The study's findings are relevant in the current context and can be used as a change agent for commerce education. The study intended to evolve a new instructional way for the students through a self-directed learning package.

In education, it is commonly accepted that learning occurs best when individuals have control over the flow of their experiences. Interconnectivity, the digital revolution, and the contemporary knowledge-driven economy are all driven by the universal forces of globalization, which define the 21st century. Over the course of a few years, survival abilities become outdated as knowledge loses its usefulness. Accordingly, the knowledge acquired in formal educational settings would need to be relearned over time. People need to have a strong commitment to lifelong learning, which can only be achieved by self-directed, motivated people. Self-directed students are those who see learning as a lifelong process and who see themselves as the source of their decisions and actions. "Pedagogies such as problem-based, case-based, and team-based learning are shown to develop self-directed learning skills" (Blumberg, 2000)

The learner has completed or partial control over self-directed learning activities. All individuals naturally engage in self-directed learning. The potential for autonomous learning is vital in the 21st-century learning environment. Students are more motivated to learn while using this strategy because they take ownership of their knowledge and feel more independent as they study. Self-directed learning broadens and improves each person's learning. One essential purpose of higher education is self-learning.

Self-activity is universal in its application as the fundamental tenet of education. The only way for an individual to learn is via their responses to circumstances. Learning cannot occur in an environment devoid of self-activity. A student learns via her activities, to put this self-activity principle simply. Students determine their own learning needs during the self-directed learning process, either with or without help from others. They also set goals, choose the best resources and people to support their education, choose and apply efficient learning strategies, and evaluate their progress. Self-directed learning holds students accountable for being the administrators and leaders of their education. It gives the student total or partial control over the learning activities by combining self-monitoring and self-

management. These comprise every activity that keeps us interested during a learning session, including both beneficial and detrimental ones.

Self-directed learning (SDL) is "critical in adult education theory and practice. Although the construct is crucial for adult education, the cognitive and motivational elements linked to SDL have received less attention" (Brookfield, 1986; Knowles, 1975). Carson (2012) "looked at characteristics of self-directed learning. According to the results of the online course's final grades, it was demonstrated that self-directed learning improves academic accomplishment". Cazan & Schiopca (2012) noted that "self-directed learning and personality traits are correlated and that self-directed learning predicts academic achievement". Ranvar (2015) investigated "the relationship between self-directed learning and the parameters affecting adult education. This study's results show a positive and significant relationship between self-directed learning and academic parameters in adults, including performance, assessment, motivation, anxiety, and intellectual engagement". Benvenuti (2012) "Student engagement with SDL was accomplished with mixed success; most students demonstrated initial resistance, while many developed into focused reflective learners over time".

Students who are self-driven tend to be more multifunctional coordinators, project managers, and problem solvers in the real world. Self-directed learners are able to pick up knowledge, absorb concepts, and gain necessary life skills. Students' unique interests, needs, ambitions, preferences, and other characteristics are directly reflected in their self-directed learning experiences. Self-direction promotes a love of learning, which fuels intrinsic motivation to learn. Self-directed students learn how to learn. Learners who take responsibility for their progress know the questions, the best ways to ask them, and the best places to look for the answers. To make their knowledge and experiences more manageable and employable, self-directed learners learn how to arrange them. The ability to view and experience learning as a process, a never-ending cycle, rather than a predetermined result, is a trait of self-directed learners.

Self-directed learners try novel ideas, analyze their efforts, try a specific tactic, evaluate their findings, make alterations, and repeat the process. Self-directed learning is an ongoing process that is comparable to continuing education throughout one's life. Learning how to learn comes naturally to self-directed learners. Self-directed learning is inherently this way. This way, students will be prepared to handle problems they will encounter. Learners benefit much from self-directed learning. They will have an advantage when they seek jobs. They will know how to get accustomed to a new activity or project

Pallavi Sasidharan Pillai, Prof. (Dr.) Bindu R.L.

Page | 114

when faced with it at home, work, or elsewhere. Self-directed learners know how to learn to continue to learn and develop throughout their lives. However, they also seek learning opportunities because they actively engage in them. One of the best things about self-learning is that students can work independently to acquire knowledge and skills related to the subject. Doing this gives students critical time to focus on what to do best.

For ages, teachers have always supported students in acquiring new skills while staying loyal to their interests, strengths, and abilities through self-directed learning. Whenever students cultivate their social, cooperation, management, and research skills, self-directed learning maintains a high level of student motivation for their work. Students should strive to adopt wise decisions and manage their time well since they choose and complete their own goals and deadlines on their own.

Self-directed learning can help pupils in the business field develop into more adept social and learning individuals. It strengthens one's aptitude for understanding and reasoning. It promotes liberating education. Self-directed students have an open mind and are inquisitive about new things. They could be open to learning, want change, and view challenges as chances for personal development. Learners who are autonomous, disciplined, self-assured, goal-oriented, and self-directed exhibit motivation and perseverance. Learners who are self-directed demonstrate a heightened consciousness of their obligation to contextualize their education and track their own advancement. Students are encouraged to create their norms and leadership styles through self-directed learning. SDL is more pervasive and lasting. It aids in time management and skill development. The requirements for a problem-solving procedure can be determined. It boosts one's self-esteem and facilitates decision-making. It fosters awareness of oneself.

Different researchers have presented different perspectives on self-directed learning and its models. Some researchers consider SDL as a process of organising the instruction and the curriculum methods; others view it as a personal attribute; they believe that education aims to develop the individuals' ethical, emotional, and intellectual self-sufficiency. The third perspective is the context, which relates to the learning environment (Song & Hill, 2007). From the different models of self-directed learning, the investigator identified the Garrison model for enhancing achievement in commerce of higher secondary school students. Garrison (1997) proposed an "SDL model which integrated Self-management (contextual control), Self-Monitoring, and motivation". "SDL is a methodology that encourages students to take personal accountability for and cooperative control over

cognitive and environmental processes to design and affirm meaningful and valuable learning results. Garrison believes that although each of these dimensions is discussed separately, in practice, they are intimately connected" (Garrison, 1997, p. 3). Garrison's model blends the perspective of learning on one's own as both a personal attribute and a learning process.

Garrison's model of SDL makes it easier to develop an effective learning style and a metacognitive viewpoint on learning. The development of "learners who can monitor themselves in a range of contexts" can be aided through reflective learning. Commerce students who are future entrepreneurs should be self-reliant to solve their problems and make effective decisions to become successful social entrepreneurs. By encouraging emancipatory learning, self-directed learning will assist students in organising and participating in learning activities, improving their capacity for learning and thinking, fostering independence by enhancing problem-solving techniques, and improving time management and decision-making abilities. So, the investigator developed a self-directed learning package based on the Garrison model of self-directed learning.

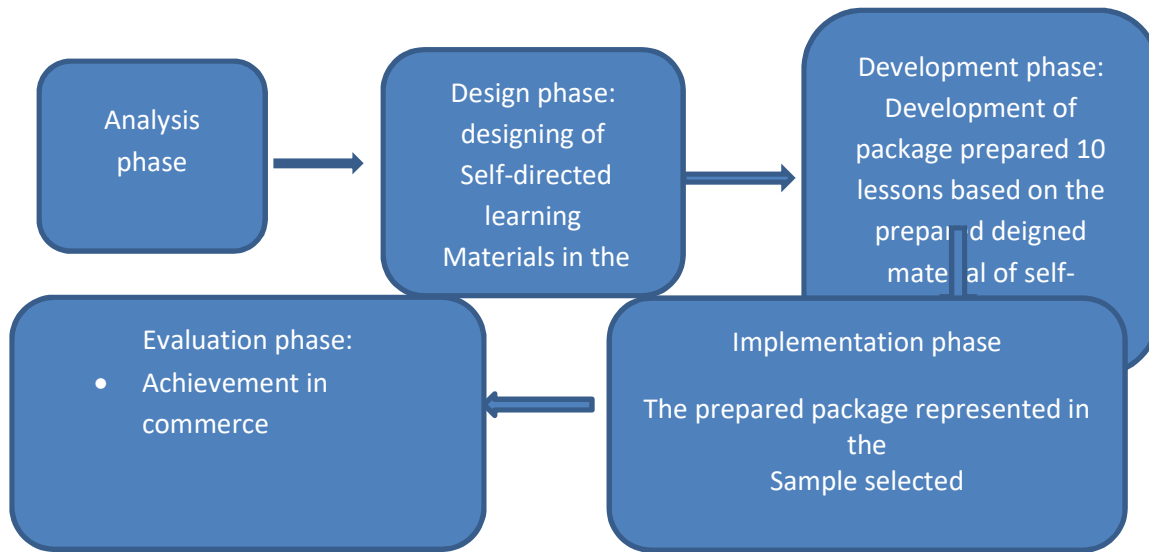## DESIGN AND DEVELOPMENT OF A SELF-DIRECTED LEARNING PACKAGE

The main objective of the package is:

- To enhance the achievement in commerce of higher secondary school students.

The investigator created a broad package design to ensure the methodical advancement of the research work. Instructional designers and developers use the ADDIE paradigm as a framework. It serves as a five-phase descriptive framework that may be used to create useful training and performance support resources.

❖ Analysis

❖ Design

❖ Development

❖ Implementation

❖ Evaluation

The different phases related to the development of the self-directed learning package based on the ADDIE model are diagrammatically represented in the figure.

Diagrammatic representation showing different steps for the development of a Self-Directed Learning Package based on the ADDIE model

The investigator considered the base Garrison model as the base for preparing self-directed learning instructional design. It consists of three phases, namely.

Phase 1: self-management
Phase 2: self-monitoring
Phase 3: Motivation

PHASE 1: SELF-MANAGEMENT

This phase is concerned with task control issues. It can be a formal talk, a slide, a video, or any other activity to engage the students and set their minds toward the topic.

PHASE 2: SELF-MONITORING

The goal of this phase is to have the students take ownership of creating their own unique meaning, or fusing new concepts and ideas with what they already know. Through observation, assessment, and response to their actions, students self-monitor their learning process. Students watch videos throughout this phase to help them understand the concepts more fully.

PHASE 3: MOTIVATION

Achieving cognitive objectives and learning new things both require motivation, which is important to start and keep up with. When learning is designed and mediated between content and cognition during the learning process, motivation represents the sense of the objectives' worth and expectation of achievement. We encourage students to learn more about the subject matter by showing them videos and giving them motivational talks.

PREPARATION OF SELF-DIRECTED LEARNING LESSON TRANSCRIPT

Lesson transcripts were based on the prepared package. The investigator selected a topic from plus two business studies textbooks designed by SCERT.

The investigator intended to check the effectiveness of the self-directed learning package by framing the following objectives, hypothesis, and methodology.

HYPOTHESIS FORMULATED FOR THE STUDY

- Self-directed learning is effective in enhancing achievement in commerce of higher secondary school students.

OBJECTIVES OF THE STUDY

- To develop a self-directed learning package in commerce for higher secondary school students.
- To find out the effect of self-directed learning package in enhancing achievement in commerce of higher secondary school students

METHODOLOGY OF THE STUDY

METHOD ADOPTED FOR THE STUDY

The investigator adopted an experimental method for the present study

DESIGN ADOPTED FOR THE STUDY

The investigator selected pre-test, and post-test non-equivalent groups design in the experimental section.

VARIABLES OF THE STUDY

Independent Variable: Self-directed Learning Package

Dependent Variable: Achievement in Commerce

SAMPLE SELECTED FOR THE STUDY

The population of the study includes higher secondary school students. The investigator selected 120 higher secondary school students, of which 60 students comprised the control group and 60 students comprised the experimental group.

TOOLS AND MATERIALS USED FOR THE STUDY

- Learning package in business studies based on self-directed learning
- Lesson plan based on discussion and demonstration
- Achievement test in commerce

PROCEDURE ADOPTED FOR THE STUDY

The investigator used the following tool to test the self-directed learning package's effectiveness.

- Achievement test in commerce

The effectiveness of the package was tested using a non-equivalent pretest-posttest design chosen by the investigator. 120 Higher Secondary Students who were selected as a representative sample were given the developed Self-directed Learning Package. Following the pre-test, the sample was split into two groups: the experimental group and the control group. Transcripts of the demonstration and discussion lessons were distributed to the control group. The experimental group was exposed to the Self-directed Learning Package in Commerce

STATISTICAL TECHNIQUES USED FOR THE STUDY

✓ Descriptive statistics
✓ t-test
✓ ANCOVA was done using SPSS

ANALYSIS AND INTERPRETATION OF DATA

DESCRIPTIVE STATISTICS OF ACHIEVEMENT IN COMMERCE SCORES OF HIGHER SECONDARY SCHOOL STUDENTS

Table 1

Descriptive statistics of Achievement in Commerce scores of Higher Secondary School Students

Descriptive Statistics	Pre-test scores of Achievement in Commerce of the experimental group	A post-test score of Achievement in Commerce experimental group	Pre-test scores of Achievement in Commerce control group	Post-test scores of Achievement in Commerce of scores of the control group
N	54	54	54	54
Mean	14.48	21.17	15.76	18.33
Std. Error of Mean	.545	.411	.485	.468
Median	15.00	22.00	16.00	18.00
Mode	15	24	18	17
Std. Deviation	4.008	3.020	3.560	3.437
Skewness	-.365	-.725	-.644	.039
Std. Error of Skewness	.325	.325	.325	.325
Kurtosis	-.052	.111	.120	-.539
Std. Error of Kurtosis	.639	.639	.639	.639

The values of Skewness and Kurtosis of pre-test and post-test scores of Achievement in Commerce of experimental and control groups show that the experimental group's variables, except for pre-test scores of Achievement in Commerce, are approximately normally distributed. Pre-test Achievement in Commerce scores of the experimental group are negatively skewed and leptokurtic.

TEST OF SIGNIFICANCE FOR DIFFERENCE BETWEEN MEANS OF PRE-TEST SCORES OF ACHIEVEMENT IN COMMERCE OF CONTROL GROUP AND EXPERIMENTAL GROUP

Table 2

Test of significance for the difference between means of Pre-test scores of Achievement in Commerce of the Control group and Experimental group

Group	N	M	SD	C.R.	Level of significance
Control group	54	15.76	3.56	1.75	Not significant
Experimental group	54	14.48	4.008		

Table 2 reveals that the critical ratio obtained is 1.75 and insignificant at 0.05 levels. It indicates no significant difference in Pre-test scores of Achievement in Commerce of the Control group and Experimental group. The Pre-test scores of Achievement in Commerce of the Control group (M=15.76) and experimental group (M=14.48) are almost equal. Hence, it can be concluded that the Pre-test scores of Achievement in Commerce of the Control group are almost equal to that of the experimental group.

TEST OF SIGNIFICANCE FOR DIFFERENCE BETWEEN MEANS OF POST-TEST SCORES OF ACHIEVEMENT IN COMMERCE OF CONTROL GROUP AND EXPERIMENTAL GROUP

Table 3

Test of significance for the difference between means of Post-test scores of Achievement in Commerce of the Control group and Experimental group

Group	N	M	SD	C.R.	Level of significance
Control group	54	18.333	3.43	7.33	0.01
Experimental group	54	21.166	3.020		

Table 3 reveals that the critical ratio obtained is 7.33 and is significant at 0.01 level. It indicates a significant difference in Post-test scores of Achievement in Commerce of the Control group and

Pallavi Sasidharan Pillai, Prof. (Dr.) Bindu R.L.

Page | 121

Experimental group. The Post-test scores of Achievement in Commerce of the Control group (M=18.33) and experimental group (M=21.33) significantly differ. Hence, it can be concluded that the experimental group's post-test scores of Achievement in Commerce are higher than that of the control group.

TEST OF SIGNIFICANCE FOR DIFFERENCE BETWEEN MEANS OF POST-TEST SCORES OF ACHIEVEMENT IN COMMERCE OF CONTROL GROUP AND EXPERIMENTAL GROUP USING ANCOVA

Table 4

Test of significance for the difference between means of post-test scores of Achievement in Commerce of the control group and experimental group using ANCOVA

Source of variation	df	SSx	SSy	Ssxy	SSy.x	MSy.x	F	Level of significance
Among means	1	44.083	216.75	-97.75	305.054	305.054	40.054	0.01
Within groups	105	1523.351	1109.5	687	799.677	7.615		
Total	106	1567.435	1326.25	589.25	1104.731			

Table 4 shows that the calculated value of F is 40.054 and is significant at 0.05 level (F = 25.91; $p<0.05$). This indicates that the final mean scores of treatment groups differ significantly after they have been adjusted for the difference in the post-test scores of Achievement in Commerce.

ADJUSTED MEANS OF POST-TEST SCORES OF ACHIEVEMENT IN COMMERCE OF THE CONTROL GROUP AND EXPERIMENTAL GROUP

Table 5

Adjusted means of Post-test scores of Achievement in Commerce of the Control group and Experimental group

Groups	No. of students	Pre-test	Post-test	Adjusted Post-test	S_{Ed} between adjusted means	t value
Control group	54	15.759	18.333	18.045		
Experimental group	54	14.481	21.166	21.454	.524	6.505

DISCUSSION OF THE RESULTS

The investigator discovered that the Control group's Achievement in Commerce Pre-test results were nearly identical to those of the experimental group. The post-test Achievement in Commerce scores of the experimental group are considerably higher than the control groups. The developed Self-directed learning Package helps students in higher secondary schools achieve more in the area of commerce.

The capacity for independent learning is essential for fostering lifelong learning. Self-directed learning capabilities are essential for equipping students with the specific abilities, knowledge, and qualities needed for their professional and personal development. By creating engaging tasks that empower students to take ownership of their education and grow more autonomous, teachers may promote self-directed learning. Learning that is guided by oneself promotes the natural development of self-assurance, initiative, persistence, and life happiness.

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