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EFFECTIVENESS OF FLIPPED CLASSROOM STRATEGY TO ENHANCE SELF-MOTIVATION AMONG MIDDLE SCHOOL STUDENTS

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Abstract

This study aimed to investigate the roles of the Flipped classroom strategy to enhance self-Motivation among middle school students. The study was carried out in the middle school of Sivagangai district in southern Tamilnadu. The major objective of the study is to find out whether there is any significant difference between control and experimental group of middle school students with regard to self-Motivation. Investigator used pre-test - post-test equivalent group design and purposive sampling technique for selecting the sample from the population. Sixty middle school students participated in the study. Investigator used a Self-Motivational questionnaire that was prepared and standardized by the researcher and supervisor. The study's findings revealed that the flipped classroom strategy had more effect on student's self-Motivation. There is a significant difference between Control and Experimental group students in their post-test scores.

Keywords: *Flipped Classroom Strategy, Self-Motivation, Traditional Classroom, Middle School Students, Student-Centered Learning.*

1. INTRODUCTION

Technology utilization helps students make the most of their in-class and extracurricular time. Students now have more opportunities to interact with digital electronics like smartphones, tablets, and personal computers thanks to advancements in technology. **(Deshpande & Huang, 2011)**. New learning environments that provide students with new web-based learning opportunities and resources are made possible by the growing development of digital technologies and their application in education. The student-centred approach has replaced the teacher-centred approach because it asks students to accept responsibility for their own learning, actively engage in the learning process, direct their own learning process, and establish an environment where students are at the centre of learning **(FLN, 2014)**.

2. FLIPPED CLASSROOM

Bergmann and Sams (2012).They coined the flipped classroom and it has since gained popularity all work that was previously completed as homework has now been completed in class, and all work that was previously completed in class has now been completed at home. The term "flipped classroom" refers to a method of teaching whereby "direct instruction is moved from the group learning space to the individual learning space, and the resulting group space is

transformed into a dynamic, interactive learning environment where the educator guides students as they apply concepts and engage creatively in the subject matter" **(FLN, 2014)**. When the flipped classroom teaching method is used successfully and creatively, student engagement and achievement rise. **(Herreid & Schiller, 2013).** A comparison of learning activities in a standard classroom and a flip classroom that used an intelligent tutoring system shows the effects of the classroom flip on the learning environment. **Strayer (2007)**. Flipped learning is a teaching method where students participate in hands-on, practical, or communicative activities during class time while also receiving preparation for the course through online videos or other digital platforms. This way, students take ownership of their learning **Hamdan, and Arfstrom (2013)**.

3. FOUR PILLARS OF FLIPPED LEARNING

Accordingly, "four pillars of flipped learning" **(Hamdan *et al.* 2013)** stand for;

F - Flipped learning requires flexible environments

L - Flipped learning requires a shift in the learning culture

I - Flipped learning requires intentional content

P - Flipped learning requires professional educators

Teachers are professional educators because they have the freedom to choose techniques for their classes and how to present knowledge by critically analysing and developing course materials, content, and useful assignments.

4. LITERATURE REVIEW

Teachers, academics, and school administrators are all focusing a lot of attention on the flipped classroom, which is a popular issue in current educational research **(Abeysekera & Dawson, 2015)**. People can become active learners instead of passive listeners with the aid of the FCM. **(Davies, et al., 2013)** It's a cutting-edge teaching strategy that enables pupils to receive background knowledge and information from instructional videos prior to class and then apply the theory in the classroom Hsieh et al. Problem-based learning with flipped classrooms had a much greater impact on students' learning performance than other types of instruction **Tsai et al., (2015)**. One considerable distinction between the regular classroom and the flipped classroom is the emphasis on individual work and group activities **Zappe,et,al,.(2009)**. The timing and location of the lesson changed, which has improved discussions and exchanges between the teacher and students **Miller, A. (2012)** The timing and location of the lesson have changed, which has improved discussions and exchanges between the teacher and students. In their classes, students apply, analyse, evaluate, and create the material in addition to remembering and understanding **(Krathwohl 2002)**. The flipped learning design model created a lot of improvements at the course and lesson levels, where fast prototyping procedures should be reflected **Lee et al., (2017)**. Learners apply, analyse, evaluate, and develop the material while taking their courses in addition to remembering and understanding it. **(Thai et al., 2017)**. Students must "autonomously obtain content information before entering class," according to the FCM **(Zainuddin, 2018, p.75)**. The foundation of FCM is the notion that learning environments, both inside and outside of the classroom, have an impact on student's motivation to study.

5. SELF-MOTIVATION

Motivation, according to **Brown (1987)**, is "an inner drive, urge, feeling, or desire that pushes one to a certain activity." As a result, a motivated learner is someone who is willing to put in the time and effort necessary to accomplish a goal. Student's motivation plays a vital role in performing actively in school **(Shih & Gamon, 2001)**. Intrinsically driven students are more likely to use tactics that demand more effort and enable thorough information processing. Students who were intrinsically oriented used more reasonable information gathering when confronted with difficult intellectual problems than students who were extrinsically oriented, **Lepper,et,al (1978)**. Highly driven individuals establish high standards for themselves and others, look for methods to improve their performance, and are willing to make personal sacrifices to further goals. The use of prior knowledge can increase a student's motivation to learn independently. It is even mentioned that meaningful learning will occur when pupils absorb new information into the existing knowledge structures because prior knowledge is at the centre of all learning processes **Ausubel, D. P. (1968)**. Student interest in or evaluation of task values is known as student self-motivation. This motif can be noticed in a student's response when they like or loathe a work for its own sake rather than because it will help them achieve other goals **(Sedikides, C., & Strube, M. J. 1997)**. Educational activities that incorporate students' self-determined resources as an essential element for fostering meaningful and active involvement in class **(Ryan & Deci, 2000)**. In online learning environments, where students have more control, independence, and responsibility over their own learning processes than in traditional classrooms, the ability to be self-directed is very important. **(Kocdar, 2015)**. Students' learning success is influenced by a number of things. One of these elements is motivation, which may be the most important aspect of instructional design. **(Keller,**

1979). For self-directed learning and managing their own learning processes, students in the flipped classroom paradigm must maintain and manage their motivation. Therefore, SDT "emphasizes autonomous learning and students' self-directed learning" (Zainuddin, 2018.). Flipped classroom moreover increases learning, Self-efficacy, self-motivation, and intrinsic motivation for the student. This approach encourages student participation and prepares them for higher-order academic activities such as problem-solving critical thinking, and self-directed learning. Students must "autonomously obtain content information before entering class.

6. NEED AND SIGNIFICANCE OF THE STUDY

Learning is a way of constructing knowledge, creating meaning, and self-regulating. To meet out the expected outcomes from an educational programme, the principles include the ability to communicate effectively and to identify, formulate, and solve problems. Many of these principles are mostly difficult to teach and assess effectively with informative lectures and closed-form of questions. Video lectures are effective as in-person lectures at conveying basic information. It is a constructive, cumulative, self-regulated, self-motivated, social, collaborative, and individual process

The flipped classroom has become one of the most prominent education technologies of recent years and it can serve as a model of teaching-learning to encourage active learning in the education system. The flipped classroom technology can help students become academically and mentally balanced, which results in positive outcomes for their activities. Self-Motivation plays a vital role in the teaching-learning process. One of the most essential things that influence learning performances on students who are naturally motivated have high regard for acquiring course information. In this approach facilitates the act of directing self-motivation and becoming conscious of our own learning, reflecting on what has been taught, and actively overcoming obstacles. Self- Motivation helps individuals to develop the confidence to undertake a new learning activity. Hence, it is decided to examine the effectiveness of flipped classroom strategies to improve the self-motivation of middle school students.

7. OBJECTIVES OF THE STUDY

The main objectives of the present studies are:

- To find out whether there is any significant difference between control and experimental group with regard to self-Motivation of middle school students.
- To find out whether there is any significant difference between the pre-test and post-test of control group and experimental group with regard to self-Motivation of middle school.
- To find out whether there is any significant difference between the experimental and control group post-test with regard to self-Motivation of middle School.

8. HYPOTHESIS

- There is no significant difference between the pre-test and post-test of control group with regard to self-Motivation of middle school.
- There is no significant difference between the pre-test and post-test of experimental group with regard to self-Motivation of middle school.
- There is no significant difference between the experimental and control group post-test with regard to self-Motivation o middle school.

9. METHODOLOGY

The research adopts experimental design and pre-test- post-test equivalent group design in which tools were employed for the pre-test assessment on self-Motivation of the selected students as a first stage. In the second stage, there were an experimental group and control group. The experimental group was taught flipped Classroom strategy as a Treatment, and the control group was taught the traditional method. In the third stage, the post-test assessment was taken.

9.1. Population

The population of the study consists of middle school students in the Sivagangai district of southern Tamilnadu in India.

9.2. Sample

The researcher has used the purposive sampling technique for selecting the sample from the population. The sample consisted of 60 students from the middle school of Sivagangai district in southern Tamilnadu in India

9.3. Tools Used

The researcher used the following tool for data collection.

Self-motivational questionnaire was developed and standardized by the researcher and guide.

9.4. Statistical Techniques Used

Descriptive statistic namely means standard deviation and t-test was employed in the study.

9.5. Procedure

Selected the students based on the exclusion and inclusion criteria. Selected students were given appropriate and detailed instruction about the study, and clearly mentioned the purpose of the study. Sixty participants have been selected for the study. The participants selected were divided into two groups and each group has 30 students. Researcher has taken the pre-test from these two groups was given certain specified Flipped classroom methods using Google Meet an online learning system. Participants are

invited to enter through e-mail in the flipped class as a method for retrieving video lectures, notes, assignments, during in-class time the interventions are using the warm-up activity, guided practice, and autonomous practice. Participants in the traditional class received lecture notes, assignments, and formative assessments using face-to-face delivery. After the completion of 21 days, the post-test were taken from two groups for assessment

10. ANALYSIS

Null Hypothesis: 1

There is no significant difference between the pre-test and post-test of control group with regard to the self-motivation of middle school students**.**

Table 1. Comparing mean pre-test and post-test scores of control group

Control group	N	Mean	S.D.	Mean difference (D)	df	t- ratio	Remarks at 5% level
pretest	30	52.1	4.612	0.14	58	0.23	NS
Post-test	30	49.2	3.21				

(At 5% level of Significance of the table value of is 1.96)

It is inferred from the above table that there is no significant difference in the mean scores between the pre-test and post-test of control group with regard to the self-motivation of middle school students**.** Therefore, the null hypothesis is accepted

Null Hypothesis: 2

There is no significant difference between the pre-test and post-test of experimental group with regard to the self-motivation of middle school students**.**

Table 2. Comparing mean pre-test and post-test scores of Experimental groups.

Experimental group	N	Mean	S.D.	Mean difference (D)	df	t- ratio	Remarks at 5% level
pre-test	30	40.12	2.027	0.12	58	2.639	**S**
post-test	30	53.00	3.69				

(At 5% level of Significance of the table value of 't' is 1.96)

It is inferred from the above table that there is a significant difference in the mean score between the pre-test and post-test of experimental group with regard to the self-motivation of middle school students. Therefore, the null hypothesis is accepted.

Null Hypothesis 3

There is no significant difference between the experimental and control group post-test with regard to self-Motivation of middle school students.

Table 3. Comparing mean post-test scores of control and experimental group

Group	N	Mean	S.D.	Mean difference (D)	df	t- ratio	Remarks at 5% level
Control Group	30	43.21	3.30	4.70	58	2.67	**S**
Experimental Group	30	51.60	5.132				

(At 5% level of Significance of the table value of 't' is 1.96)

It is inferred from the above table that there is no significant difference between the mean score of experimental and control group post-test with regard to self-motivation of middle school students. Therefore, the null hypothesis is rejected.

11. FINDINGS

The test findings explain (Table 1 shows) The mean pre-test and post-test scores of control groups are 52.1 and 49.2 respectively and their mean difference (D) is 0.14 which reveals that the performance of students in control groups do not differ in the pre-test and post-test scores.

(Table 2 reveals) The mean pre-test and post-test scores of experimental groups are40.12 and 53.00 respectively and their mean difference (D) is 0.12 which reveals that the performance of students in both experimental and control groups do not differ in the pre-test and post-test scores.

(Table 3 reveals) The mean post-test scores of the experimental and control groups are 43.21 and 51.60 respectively and their mean difference (D) is 4.70 which reveals that the group taught with the flipped classroom strategies has higher mean post-test scores as compared to the group taught with the traditional method. It means that students taught with the flipped classroom strategies showed better performance than the students taught with the traditional method.

12. RECOMMENDATION

- Supplying schools with sufficient technological resources, contemporary lab equipment, and high-speed internet to assist teachers in preparing the necessary materials in accordance with the flipped classroom strategy.
- The opportunity to study the course material prior to class at their own pace, it has become clear that the students felt more at ease and confident in the environment.
- The flipped classroom makes it possible for teachers to devote more class time to practice.
- Students should receive adequate time management instruction so that they can manage their time well, which will improve their self-control.
- The study also recommended that this research be applied again to look at the impact of the flipped classroom technique on other factors, such as other content areas or subjects and various grades from other academic stages.

13. CONCLUSION

Effective classroom management is made possible by the flipped classroom approach. In addition to the flipped classroom format, students must use the online course materials and study the topics listed in the course syllabus before participating in face-to-face activities. The flipped classroom's learning materials are appealing to a variety of applications, which can help students retain more information. The teaching strategies of flip teaching are more attractive than the lecture method. Therefore, the student's interest and self-Motivation maybe increase. On the other hand, although the teachers considered that the flipped classroom pedagogy was creative, they thought it might be useful for teaching principals. As a result, the flipped classroom model is more effective than the traditional classroom model in terms of increasing student self-Motivation.

REFERENCES

Abeysekera, L., & Dawson, P. (2015). Motivation and cognitive load in the flipped classroom: definition, rationale and a call for research. *Higher Education Research & Development, 34*(1), 1-14.

Acar, S. (2009). The effects of ARCS motivation strategies on learner's academic successes, the permanence of learning, motivations and attitudes in web-supported performance-based learning. (Unpublished doctoral thesis, Gazi University, Ankara).

Ausubel, D. P. (1968). Educational Psychology A Cognitive View. New York: Hotl, Rinehart and Winston, Inc

Bergmann, J., & Sams, A. (2012). Flip your classroom: Reach every student in every class every day. Washington, DC: Internal Society for Technology in Education.

Brown, H. D. (1987). Principles of Language Learning and Teaching. (2nd ed.). Englewood Cliffs, New Jersey: Prentice-Hall.

Cheng, L., Ritzhaupt, A. D., & Antonenko, P. (2019). Effects of the flipped classroom instructional strategy on students' learning outcomes: A meta-analysis. *Educational Technology Research & Development, 67*, 793–824. https://doi.org/10.1007/s11423-018-9633-7.

Deci, E., & Ryan, R. (1985). Intrinsic motivation and self-determination of human behaviour. Plenum Press.

Flipped Learning Network (FLN). (2014) The Four Pillars of F-L-I-P™

Gilboy, M. B., Heinerichs, S., & Pazzaglia, G. (2015). Enhancing student engagement using the flipped classroom. Journal of Nutrition Education and Behaviour, 47(1), 109–114.

Hamdan, N., McKnight, P., McKnight, K., & Arfstrom, K. M. (2013). *A Review of flipped learning.* Flipped Learning Network, Pearson, George Mason University. Retrievedfromhttps://www.researchgate.net/publication/338804273_Review_of_Flipped_Learning.

HeJTeid, C. & Schiller, N. (2013). Case studies and the flipped classroom. *Journal of College Science Teaching*, 42(5), 62-66.

Johnson, L. W., & Renner, J. D. (2012). Effect of the flipped classroom model on a secondary computer applications course: student and teacher perceptions, questions and student achievement. Dissertation. University of Louisville, Kentucky

Keller, J. M. (1987). Development and use of ARCS model in instructional design. Journal of Instructional Development, 10(3), 2–10.

Krathwohl, D. R. (2002). A revision of Bloom's taxonomy: An overview. *Theory into Practice, 41*(4),212–264.

Lee, G., & Wallace, A. (2018). Flipped learning in English as a foreign language classroom: Outcomes and perceptions. *TESOL Quarterly, 52*(1), 62-84.

Lin, Y. T. (2019). Impacts of a flipped classroom with a smart learning diagnosis system on students' learning performance, perception, and problem-solving ability in a software engineering course. *Computers in Human*

Behavior, 95, 187–196. doi:10.1016/j.chb.2018.11.036.

Milman, N. (2012). The flipped classroom strategy: What is it and how can it best be used. Distance Learning, 9(3), 85–87.

Miller, A. (2012). *Five best practices for the flipped classroom*.

Ryan, R., & Deci, E. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist, 55*(1), 68–78.

Sedikides, C., & Strube, M. J. (1997). Self-evaluation: To thine own self be good, to thine own self be sure, to thine own self be true, and to thine own self be better. In M. P. Zanna (Ed.), *Advances in Experimental Social Psychology* (Vol. 29, pp. 209–269). London: Academic Press.

Strayer, J.F., 2007. The effects of the classroom flip on the learning environment: A comparison of learning activity in a traditional classroom and a flip classroom that used an intelligent tutoring system (Doctoral dissertation, The OhioState University).

Zainuddin, Z. (2018). Students' learning performance and perceived motivation in gamified flipped-class instruction. *Computers &Education, 126,* 75–8.

Zappe, S., Leicht, R., Messner, J., Litzinger, T., and Lee, H.W., (2009) "Flipping" the classroom to Explore Active Learning in a Large Undergraduate Course, Proceedings from American Society. for Engineering Education Annual Conference & Exhibition.

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