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Representing the Lived Experience of High School Students in the Flipped Classroom: Benefits and Challenges

Zahra Vahidi[1]*, Ali Akbar Khosravi[2]

1. PhD in Curriculum Planning, Visiting Lecturer, Farhangian University of Isfahan, Fatemeh Zahra Campus, Isfahan, Iran
2. Associate Professor, Curriculum Planning Group, Central Tehran Branch, Islamic Azad University, Tehran, Iran

* Corresponding author's Email: parisav@ymail.com

ABSTRACT: The present paper is qualitative and interpretive study that uses the strategy of phenomenological research to explain the experience of high school students in flipped classroom; therefore, the analysis unit of the present study includes all the eleventh grade students of the art school who have been trained in the eleventh grade of 96-97 academic year; fifteen students are considered as a sample. The data collection tool is an in-depth interview which is analyzed based on the thematic method of in-text approach. Findings show that the majority of students are satisfied with the implementation of this method; dissatisfaction is related to problems of student, teacher performance and inappropriate context. Also, the advantages of this method are deep learning and the possibility of re-learning at home, and discussion in the classroom.

Keywords: Phenomenology, flipped classroom, deep learning.

Introduction

Many educational researches as well as most of the teacher training are dedicated to how teachers should present the curriculum for maximum learning (Owoyele, 2011). Instructors often report problems in managing classroom time and the number of face-to-face interactions in the classroom to achieve an effective balance between lecturing and active learning strategies; hence, flipped classroom models attempt to meet this challenge by devoting more time to the classroom to affect learning methods (Strayer, 2012). Flipping of teaching-learning activities is a new pedagogical approach that uses visual lectures and problem-based group activities asynchronously in the classroom (Bishop & Verleger, 2013); in other words, instead of watching the lecture in the classroom, students watch the lecture outside the classroom simultaneously or asynchronously and dedicate the class time to learning activities (Roach, 2014).

Little (2015) provide the simplest definition of the flipped class which includes events that traditionally take place inside the classroom, and also events that take place outside the classroom; so, at a glance the flipped classroom is based on pivotal inclusiveness and active learning. Flipped classroom is a teaching method to reverse the traditional teaching method in order to get rid of educational teaching. In the traditional method, the classroom is dedicated to educational content, and in this regard, assignments are considered for learners to use it outside the classroom, but the flipped classroom is a strategy that records educational lectures through video recording and moves it out of the classroom (Zang, 2016).

In this approach, content delivery is eliminated in the classroom, and instructors can provide classroom activities by teaching learners how to realize problems and apply information in real life. Implementation of flipped classroom strategies increases learners' understanding of the importance of pre-classroom activities and reinforces them within the classroom. This pedagogy also allows instructors to spend more time teaching learners in the classroom (Wallace, 2013).

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There is a lot of foreign research in the field of flipped class. In this regard, Chilingaryan and Zvereva (2017) in a study entitled flipped class method as a foreign language learning technique, conclude that the development of spent time between learner and teacher, increasing responsibility, individual self-reliance and the instructor's ability to deliver short lectures, are taken into account the professional characteristics of teaching, including age and characteristics of the learning group; using time more effectively for the learner and instructor increase creativity and critical thinking, a capacity to archive constant information, a positive change in the teacher-learner relationship. When learner becomes a main character and creator of their own knowledge, he acts as a guide and advisor, improves the overall motivation and makes the classroom environment more friendly and focused in the classroom.

McNally et al. (2017) in a study entitled Flipped Classroom Experiences: Student Preferences and flipped Strategies in Higher Education, concludes that in the flipped classroom, a positive attitude is created towards learning activities, and learners become more involved with the content. On the other hand, the findings show that although learners may find the flipped class difficult, inclusive efficiencies and participatory activities in the classroom improve when: 1. Theoretical perspectives are used to refine flipped teaching strategies; 2- Design and evaluation should be combined and 3 - Inversion of the whole course.

Love, Hodge, Corritore, and Ernst (2015) in a study entitled Research-Based Learning and the Flipped Classroom Model conclude that the application of the Flipped approach improves learning and increases learner's interest. On the other hand, it creates very positive experiences, especially in participatory understanding and education.

Therefore, it seems that you need to think of a way to facilitate changes in the learning process. On the other hand, as explained, many teachers report that there is less time to engage in appropriate learning activities in classroom, while students and the community expect teaching to emphasize on empowering student education. Most of the research has been done on theoretical courses in high school and university and less on the new system and vocational school which ultimately offer the advantages and disadvantages that have been addressed in various flipped class experiences. This qualitative research answers the question: what is the place of flipped classroom teaching in students' perspectives? And what experiences have they gained with this type of classroom, and what are the advantages and challenges of this type of classroom?

Material and Methods

The present study is qualitative and interpretive study that uses the strategy of phenomenological research to explain the experience of students of active learning in flipped classroom. In the present study, we try to represent students' perceptions of the benefits and challenges of the flipped class and the experience they have had.

The analysis unit of this study include all 11th grade students of the art school who have been trained in the flipped education method in 12 sessions in the classroom of the application of new technologies in 2019 academic year. Based on the flipped class method, this group of students watch and read the video file and sometimes the audio file of the teacher, teaching the relevant lesson before attending the class, and during the class, they are given homework and activities. Data collection is saturated up to 12 people, but to be sure, this process continues until 15 people, where other data collection is completely duplicated and reached full saturation. The data collection tool is an in-depth interview to allow participants to freely describe their experience. The average time for each interview is 20 minutes.

In order to guarantee the validity, which is the accuracy of the findings, after analyzing each interview, the participants are referred again; the accuracy of the content is confirmed and the necessary changes

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are made. In order to study the transferability of findings in phenomenology, the researcher is required to present his data set and textual descriptions in a complete and rich way that can be adapted to the previous theoretical literature. The present study tries to complete the findings which is important to achieve. Reliability indicates how the researcher examines the changing conditions of the phenomenon. In order to achieve the reliability of the two professors and two experts in coding, they have reviewed the research process and confirmed the results. This has been achieved through a careful review of the data and findings of this study.

Data analysis is performed with Van Manen (2016) approach which is called thematic analysis. The reason for choosing this approach is because in his view, phenomenology means the study of various aspects of learning and teaching that are experienced by people in the real world.

Results

According to the interviews conducted with the participants, the results are obtained based on satisfaction or dissatisfaction of this educational approach.

Table 1. Frequency of satisfaction or dissatisfaction of participants

Coding	Frequency	Percentage
Method Satisfaction	11	57.89
Method Dissatisfaction	8	42.11
Total	19	100

According to Table 1, all of 19 codes obtained in the field of satisfaction or dissatisfaction with the flipped class method, 11 codes for satisfaction with the class and 8 codes for dissatisfaction with the class. It can be concluded that 57.9% of students are satisfied with the implementation of this type of teaching in the classroom and 42.1% are dissatisfied. According to the 58% satisfaction of the participants with the flipped classes, the total frequency of the codes obtained from the benefits of the flipped class is 37 codes, are in line with Table 2.

Table 2. The benefits of running a flipped class

Axial coding	Frequency	Percentage
Deep learning	15	40.54
Possibility of re-learning	12	32.43
discussions in the classroom	3	8.11
Boosting motivation	2	5.41
knowing new lesson before class	1	2.70
Comparing pre-organizers	1	2.70
Gaining new information	1	2.70
Providing appropriate learning opportunities	1	2.70
No need for books	1	2.70
Total	37	100

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Also, referring to Table 1 and the fact that 42% of students are dissatisfied with the implementation of the flipped class method, so the problems and challenges expressed by the participants are coded and presented according to Table 3.

Table3. Flipped classroom problems from the participants' point of view

Coding	Frequency	Percentage
Student problems	72	78.26
Lack of suitable substrate	15	16.30
Underlying problems	5	5.43
Total	92	100

According to the research findings, the frequency of problems related to students that cause their dissatisfaction is according to Table 4.

Table 4. Students' problems in flipped classroom dissatisfaction

Coding	Frequency	Percentage
Resistance to change	24	33.33
Confusion	18	25
Habit of teacher’s face to face teaching	12	16.67
Long-term	10	13.89
Priority of practical assignments	8	11.11
Total	72	100

According to the research findings, the frequency of problems related to improper implementation of the method by the teacher cause student dissatisfaction.

Table5. Problems of improper teacher performance due to students' dissatisfaction in the classroom

Coding	Frequency	Percentage
Inability of the teacher to motivate	4	80
Lots of files	1	20
Total	5	100

According to the research findings, the frequency of field-related problems that cause student’s dissatisfaction is related to the lack of coordination between parents and schools and internet problems in the country, the amount of each is presented in Table 6.

Table6. Problems causing students dissatisfaction with the flipped classroom

Coding	Frequency	Percentage
Lack of coordination with parents and school	13	86.67
Internet problems	2	13.33
Total	15	100

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According to the data obtained from the advantages and challenges of the flipped class in the art school, 4 main themes and 19 sub-themes are extracted from the findings that can reflect the students' experience of flipped learning, which can be seen in Table 7.

Table 7. learning experience concepts of high school students in Flipped classroom

Partial sub-themes	The main themes of the holistic stage
Deep learning Possibility of re-learning Creating discussions in the classroom Boosting motivation knowing new lesson before class Compare pre-organizers Getting new information Providing appropriate learning opportunities No need for books	The benefits of running a flipped classroom
Resistance to change Confusion teacher's face to face teaching habit Long-term Priority of practical assignments	Students' problems in the flipped classroom
Inability of the teacher to motivate Lots of files	Teachers' problems in the flipped classroom
Lack of coordination with parents and school Internet problems	Underlying problems

According to Tables 6 and 4, the main theme obtained from the holistic stage is extracted, which includes the benefits of flipped class implementation, problems related to students, teachers and the field of performance, which are described below

Theme 1: The benefits of flipped class implementation

To facilitate changes in the learning process, you should think of a plan, while students and society expect to rely on teaching capable students, so in this article, the researcher considers a number of benefits expressed by high school students in the context of their experience of the flipped class. According to the students, the advantages mentioned in the same sub-themes are the result of the participatory stage which include the possibility of re-learning, deep learning, providing a suitable opportunity to learn, no need for books, familiarity with the new lesson before class, motivation, discussion in the classroom, comparison with pre-organizers, new information.

1-1. Possibility of re-learning: The students believed that the flipped class would allow the student to do this based on his or her individual abilities, however often he or she needed to replay the lesson, and that even students who are absent could flipped the lesson at home. The focus of this teaching method is on the speed and ability of the students.

1-2. Deep learning: According to the students' experience, in the flipped class, because everyone does the training according to their individual differences, at home and in their desired circumstances, and

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according to their individual differences, and because in the classroom only discussion and practice It takes place and personal feedback is provided by the teacher, thus enabling students to understand their weaknesses and strengths, and in fact to deepen their learning.

1-3. Providing a suitable opportunity to learn: Learning from the perspective of students in the inverted classroom included presenting them with situations from the curriculum and asking them to explain the concrete example of its concept and application in practice in the classroom. Students also try based on their past knowledge. To make the lesson concepts as objective as possible and to examine its applications from different aspects. Also, by drawing practical situations, the students were asked to solve the existing challenge together, in this regard, the student's comments were completely free and all their comments were written on the board until a conclusion was reached, so there was a good opportunity to learn.

1-4. No need for books: According to the students, their learning in the flipped class require more interactions, sharing experiences and engaging in the learning process than their need of book to memorize the content only from the book.

1-5. Familiarity with the new lesson before class: According to the students in the flipped classroom, since the class time is spent on learning activities and discussions on the subject, and because the students received the video of the sessions in several sessions, each session has the opportunity to be able to learn to some extent. Students exchange different points in relation to each other and the product of this process leads to learning. On the other hand, students' interaction with the teacher increases, because the teacher in the classroom is like a teacher for students with direct opinions and activity.

1-6. Strengthening motivation: In the flipped class, the student engages in learning and discussion activities in a group, and in order to show himself / herself and present his / her homework in good quality, he / she uses all his / her power, to work with all his / her ability to get involved. In the flipped class, students interact with the subject or task you are committed to learn better, and this leads to social engagement. On the other hand, cognitive engagement is created through consultation and like-mindedness. And because the student feels that he is part of the learning process and is involved in the work process, he is responsible for learning; this leads to his involvement in work result, and this issue inevitably increases the motivation and enthusiasm of the student.

1-7. Creating discussions and exchanges in the classroom: According to students in the flipped classroom, since classroom time is spent doing learning activities, the opportunity for communication and interaction for students is very high. Students gain different points in relation to each other and the product of this process leads to learning. On the other hand, students interact with the teacher more, because the teacher in the classroom is like a teacher for students with direct activities. It leads to the

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normal class with students who can interact with the teacher and other students and use each other's opinions.

1-8. Comparison of pre-organizers: Because in the flipped class, students watch the teacher's teaching video at the right time, not all in the same situation, they have enough time to focus and think about the organizers. On the other hand, learners participate in a class, separate the general content from the part and look at the lesson material from different angles. The concepts are regularly placed in the students' cognitive construction.

1-9. Acquiring new information: Because students are in situations in the flipped classroom who are asked to give a concrete example of the concept in question and its application in practice, they try based on their past knowledge (pre-organizers) to make the concepts objective as much as possible and examine its applications from different aspects. So in cyberspace groups, everyone put the film and their findings according to the lesson content. Also, in the classroom, problem solving is done by drawing practical situations and facing different challenges and students' like-mindedness. In this regard, the students are completely free to comment and all their comments are written on the board until conclusion is achieved; according to the students, in this situation, the highest level of learning occurs when the student is involved in the learning process and learns more new things than the book and curriculum.

Theme 2: Problems with students in the flipped classroom

The flipped class approach, despite all the advantages, has its drawbacks, which are related to the learner or student. They are briefly described below:

2-1. Resistance to change: One of the problems raised by the students is the opposition of some students to the flipped class approach, which according to the students, it is only due to resistance to change. In an approach based on change, the educational system must teach students the ability to think and analyze problems, and foster them with a critical and questioning mindset. But opposite thinking focuses on stagnation in which learners passively acquire information and follow power. As a result of the traditional and stereotyped attitude, education becomes a systematic device which attracts people without making the sense of capability and skill in them. In this view, school is neither a continuation of society nor a part of life, but a task that must be endured, so students resist change because they do not know how to cope.

2-2. Time consuming: According to students, using flipped class to achieve deep learning requires more time for students' attention, because the student himself should be looking to present material or videos related to the class discussion.

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2-3. Teacher's habit of face to face teaching: Because the students are accustomed to teacher's face to face teaching, they are not accustomed to taking lessons through film; so they resist this change and feel the necessity of teaching face to face.

2-4. concentration Disruption: According to the students, because the group is formed in cyberspace and the topics are discussed there, it is difficult for students to focus on the content because the disruptive factors in cyberspace, such as text messages, cause distraction and lead to students' distraction.

2-5. Priority of practical work: Because this research is conducted in the art school, according to the students, the students' practical assignments at home overwhelming high; so, the students do not show a desire to learn lessons at home, and this is one of the problems of conducting a flipped class in the art school.

Theme 3: Teacher's Problems in the flipped Classroom

3-1. Inability of the teacher to motivate: One of the problems of students in relation to teacher's performance is the inability of teachers to create and increase students' motivation. Because teachers have a profound effect on academic achievement and increase their academic motivation, it is very important for students to be approved by teachers. Also, successful experiences and failures of students affect their beliefs about abilities, capabilities and weaknesses which are the key points of student's effort and academic motivation.

3-2. Lots of files: Some students believe that they cannot see all the files due to the large number of files related to each topic.

Theme 4: Contextual problems

4-1. Internet problems: Due to the problems of the Internet and cyberspace in our country, students have difficulty receiving some files in the group and using them.

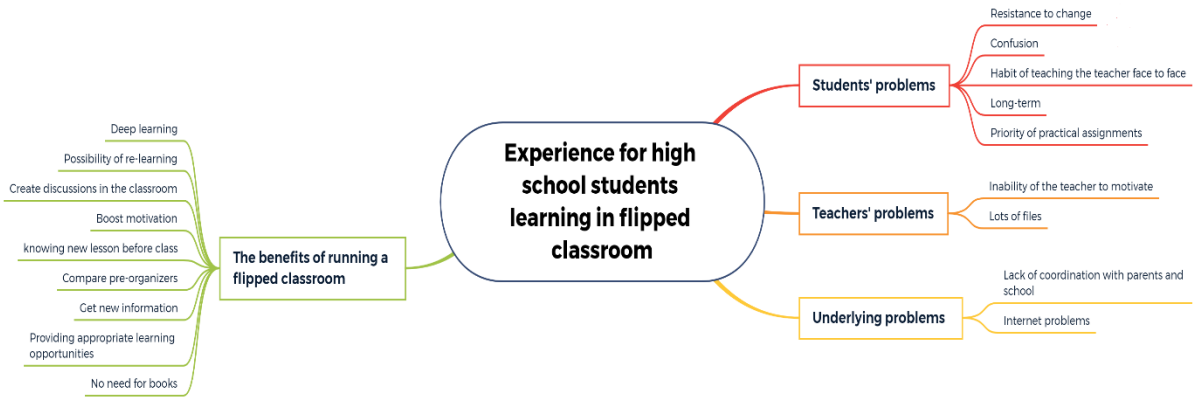


Figure 1. Framework for high school students' experience of learning in flipped classroom

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Discussion

It seems that the experience of high school students in education is not only the learning of educational content and materials, but also the experience of elements beyond the classroom. Such an experience for teachers, especially schools, which are an environment full of complex human interactions and communication, can be the basis for any practical review and improvement of educational activities for the benefit of school and its students. If the students' understanding of this type of class and education is conveyed to educators and teachers that education is part of a whole, and we must always seek new methods and understand its benefits and challenges in learning, there will be good consequences. For this purpose, in the present study, an attempt is made to introduce the benefits and problems of the flipped classroom to the education community by finding the benefits and problems of the flipped class with the phenomenological approach of high school students and the success of as many students as possible in this region. Therefore, according to the purpose of the present study, students' experiences obtained through interviews, are coded and their main and partial themes are observed. According to the frequency of the codes obtained, they are prioritized and compared with other studies, and finally a framework of high school students' experiences in this field is obtained.

According to the results obtained in Table 1, out of a total of 19 codes obtained in the field of satisfaction or dissatisfaction with education by the flipped class method, 11 codes for satisfaction with the class and 8 codes for dissatisfaction with the class on the data and frequency obtained, it can be concluded that 57.9% of students are satisfied with the implementation of this type of teaching in the classroom and 42.1% are dissatisfied. So, according to the findings in Table 2, students who Inverse classroom instruction was satisfied, 40.5% due to deep learning and 32.4% due to the possibility of re-learning in this method, and in the next ranks can be strengthened the motivation of this method and that students before upon entering the classroom, they became familiar with the new lesson and were able to compare it with their pre-organizers in sufficient time.

According to the findings of Table 3, the problems that have caused dissatisfaction of some students are related to the method of teacher's implementation and the lack of a suitable platform for implementation. According to the findings of Figure 3, 78.3% of these problems are related to the students. The lack of a suitable platform to implement this method with a frequency of 16.3% has caused this dissatisfaction, which according to the findings of Table 4, includes problems that have been related to students in this regard. It is considered that the disturbance of students' concentration is the cause of this dissatisfaction, because they have most of the audio files through the Telegram cyberspace; listening to it at home, they cannot concentrate enough, and in the next place, their need for face-to-face teaching by the teacher, and the fact that they themselves have to share in the teaching which takes a long time, cause

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dissatisfaction in this method. This method is implemented in art school students at home, faced with a high volume of practical homework. So they could not use their teacher's files regularly.

According to the findings of Table 5, the problems related to the improper performance of the teacher, which has caused students' dissatisfaction with this teaching method, are only due to the teacher's inability to motivate students and a large number of files used. According to the findings of Table 6, the problems related to the context for the implementation of the flipped class role in students' dissatisfaction with the problems of the Internet and some contextual problems such as sensitivity and ignorance of families about this teaching method and inappropriate school weekly program, can be named.

In general, the present study is consistent or inconsistent with the present research in some cases. For example, Chilingaryan and Zvereva (2017) conclude that in the flipped class, the possibility of working for each learner based on personal speed , using time more effectively for the learner and teacher, increasing creativity and critical thinking, capacity for permanent information archiving, positive change in the teacher-learner relationship, when the learner becomes a main character and creator of his knowledge with the role of guide and counselor, improves inclusive motivation and classroom environment becomes more friendly and focused.

McNally et al. (2017) conclude that the flipped class shows that a positive attitude towards learning activities is created and learners become more involved with the content. On the other hand, findings show that although learners may find the flipped class difficult, inclusive efficiencies and participatory activities in the classroom improve; it is exactly in line with the present study because in this study, with the improvement of the Students' motivation and attitude, students still find the flipped class more difficult.

Love et al. (2015) conclude that applying the flipped approach improves learning and increases learner’s interest. On the other hand, it creates very positive experiences, especially in participatory understanding and education, and therefore, due to the deep learning in the students' minds, they are similar to the present researcher.

All the above researches point to the positive effect of the flipped class on deep learning, the possibility of re-learning learners, motivation and other positive aspects of the flipped class, but its disadvantages and problems were not mentioned, which is novel from this perspective. The mentioned researches were not in line. The results of the present study mean that by increasing the awareness of teachers and curriculum implementers and students about changes and improvements and different teaching methods can reduce their resistance to change. In order to successfully implement change and reform, the conditions for change must first be created and the existing barriers to change must be identified and removed. Flipped learning is neither a method of teaching nor a philosophy of teaching. Flipped learning

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is a flexible technique that can be used at the right time to make the best use of students' face-to-face communication time. Content is also important, and it is best to encourage students to focus on content in flipped classroom learning.

The present study, like other studies, has faced limitations. For example, the present study is conducted in the art school, and care should be taken in extending it to other levels. The present study has been tested in a theory course and care should be taken in extending it to practical courses. Because the school has been planned before, it has placed restrictions on the researcher in terms of having the right class and the conditions of the students' weekly schedule. However, according to the results of the present study and all the limitations mentioned, it can be acknowledged that the flipped class approach is a practical approach that is very flexible based on the conditions and facilities. They have implemented this method in their existing conditions but what is suggested to teachers and the education community is that the implementation of any teaching method or any teaching-learning activity requires a proper lesson plan and creativity and creating a suitable context. Therefore, it is recommended to the authorities to take basic measures for the development and promotion of cognitive and metacognitive skills of teachers and students, which are necessary for each part, in the form of courses, workshops, conferences and consultations. In order to conduct this research, it is suggested that researchers in future research to examine the effectiveness of the flipped class in practical courses. Researchers are also suggested that a similar study may be conducted in other provinces and schools and sections and the results obtained be analyzed and compared.

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