Comparison of traditional education model and digital education model in flipped classrooms

Comparación del modelo de educación tradicional y el modelo de educación digital en aulas invertidas

Mustafa Ufuk Çelik*
Near East University - Turkey
mustafaufuk.celik@neu.edu.tr

Sinem Kasimoglu
Near East University - Turkey
sinem.kasimoglu@neu.edu.tr

ABSTRACT

The human being, since the existence, continues its generation by educated and willing to educate itself constantly renewing, developing and evolving as an entity continues. When the traditional education models are examined, it can be seen that it evolved in a strict but slow order starting from the late 18th century until the early 2000s. But technology, and therefore education, met the dazzling world with the digitalizing world since the 2000s. In these times when we observe the reflections of developments in the digital world on higher education area, the need for timeless placeless learning/teaching with student-centered education is also in demand. We will be able to access our machines remotely (Jones and Dewing, 2011: 37). The concept of "distant within the Earth has never been so" close una to human beings. Comparison of traditional education model in higher education with digital education model: Flipped classroom model; In this study named NEU example, a quantitative study was conducted with 102 students who applied the flipped classroom model for more than two years. The data obtained as a result of the survey conducted within the scope of the research was analyzed with SPSS 23.0 package program and the findings were explained with tables. Most of the participants stated that they learned the lesson better, more detailed and more permanently by using the reverse side education method and stated that participation in the classroom was increased.

Keywords: Flipped classroom, digital education, education models

RESUMEN

El ser humano, desde su existencia, continúa su generación educado y dispuesto a educarse constantemente renovando, desarrollando y evolucionando a medida que una entidad continúa. Cuando se examinan los modelos de educación tradicionales, se puede ver que evolucionó en un orden estricto pero lento desde finales del siglo XVIII hasta principios de la década de 2000. Pero la tecnología, y por lo tanto la educación, se encontraron con el mundo deslumbrante con el mundo de la digitalización desde la década de 2000. En estos tiempos en que observamos los reflejos de los desarrollos en el mundo digital en el área de educación superior, también se demanda la necesidad de aprendizaje/enseñanza atemporal y sin lugar con educación centrada en el estudiante. Podremos acceder a nuestras máquinas de forma remota (Jones y Dewing, 2011: 37). El concepto de "distante dentro de la Tierra nunca ha sido tan" cercano a los seres humanos. Comparación del modelo de educación tradicional en educación superior con el modelo de educación digital: modelo de aula invertida; En este estudio llamado ejemplo de NEU, se realizó un estudio cuantitativo con 102 estudiantes que aplicaron el modelo de aula invertida durante más de dos años. Los datos obtenidos como resultado de la encuesta realizada dentro del alcance de la investigación se analizaron con el paquete de programas SPSS 23.0 y los resultados se explicaron con tablas. La mayoría de los participantes declararon que aprendieron la lección mejor, más detalladamente y de manera más permanente al usar el método de educación del reverso y declararon que se aumentó la participación en el aula.

Palabras clave: aula invertida, educación digital, modelos educativos.

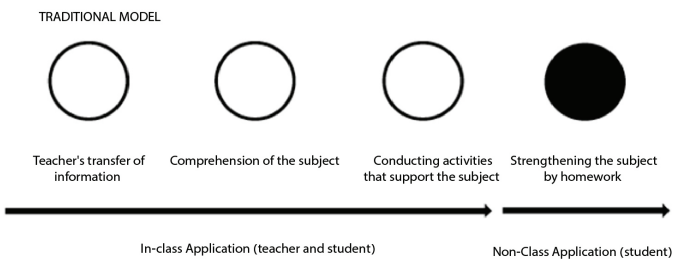
* Corresponding author

Recibido: 28/02/2019 Aceptado: 18/06/2019

Introduction

The Flipped Classroom education model is a new education model that is based on classical, traditional taking courses and then learning at home with exercises and examples, and the opposite of the concept that aims to learn permanently with this method. The student is able to follow and learn any narrative that he / she is responsible for learning and/or wants through the virtual applications, visuals and / or audits prior to the course, regardless of the applied or instructional environment. In the classroom environment, the teacher can only intensify the issues that he/she has learned or learned before and helps the student to understand and better understand the issues through discussions. With the help of asynchronous systems, the Reverse-Face class system provides students with the opportunity to access the parts of the subjects that are suitable for individual learning outside the school, while offering more opportunities for individual or group problem solving activities in the classroom environment. In short, this system, which gives students the opportunity to focus on the problems they face in their individual learning, is defined as the replacement of homework and classroom instruction (Verleger & Bishop, 2013; Merkibayev et al, 2018; Muyambiri, & Chabaefe, (2018). Practical applications of theoretical narratives are considered to be very useful in education. Although the theoretical knowledge is undeniably important, it is a useful process that reinforces theoretical education and enhances the value of the practices. It is extremely useful to convert the lessons, that is, the narratives (theoretical information transmitted through digital interaction) into practice by some methods. Such studies are very useful in terms of better understanding of previous narratives and the reflections of digital narratives in practice. In the present case, almost all of them in the higher education curricula are educated in the same classical narrative plane, which can be called a copy almost 10 years ago. they continue. (Other than educational institutions that use digital interactions such as flipped classroom in recent years) Many faculty members do not know the practical situations of the topics they are talking about and are not even aware of what is happening in real business life. The status of an interdisciplinary field of communication training is constantly discussed in Turkey. In this context, it is seen that academics providing communication education continue the discussion among themselves. Those who care about the essence of communication education in communication science, and those who rely on communication practices insist on applied communication. (Çelik, 2012; Fateminasab, (2014).

In other words, the reverse-face class practices emerge as the basis for the previously learned, later practices and teachings. In contrast to the traditional teaching and learning system, the Reverse-Face class system is defined as a method that gives the student the opportunity to learn theoretical knowledge at home and apply what they have learned at school. (Zownorega, 2013; Barreto, & Alturas, (2018). As in visual communication, images are more powerful communicator than text so, the trends of today's advertisement design are composed with more images and short text. (Arshad & Naseer, 2019; Saidi & Siew, 2019). The student has the chance to practice and experience what he / she has learned, and can learn better when he / she experiences it. Technology in the field of communication develops very quickly and we try to catch it. Students have the opportunity to learn these programs at home, where they are disciplined and guided. (Kasımoğlu, 2012) In general terms, the reverse face class reverses the traditional course of learning and foresees that the students learn the subject that should be explained by the instructor in the classroom except the class hours, in electronic environment. The beginning of a teaching process through the end of a uniform teaching process will open the door to alternative thinking systems. In contrast to the traditional teaching method in the Reverse-Face classroom system, students learn the theoretical part of the course with multimedia tools such as online videos, presentations, and learning management systems at home (see Figure 1). In addition, in addition to the basic course materials given by the teacher, they acquire the responsibility for individual learning by conducting necessary research on the content. In the classroom, students have the opportunity to share and reinforce the knowledge they have gained through the active role of the teacher to help them, such as the practices prepared on the subject and the discussion environments offered to share what they have learned (Seaman & Gaines, 2013).



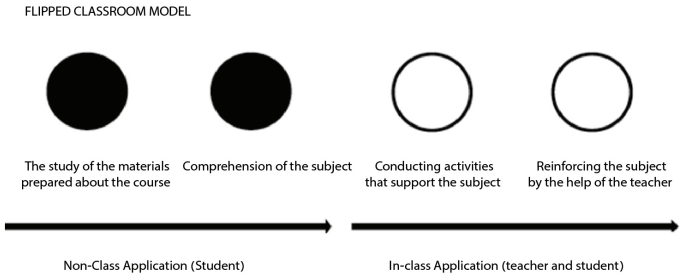


Figure 1. Comparison of Traditional Education Model and Reverse Face Class Model (Zownorega, 2013)

The system is almost reversed, as seen in the comparison of the Flipped Classroom Model with Traditional Education Models. The teacher's expression, the student's grasp of the subject, examples and activities followed by homework to provide learning, while the Flipped Classroom side of the process is reversed. While activities and reinforcing topics are carried out face-to-face with classroom practices, out-of-class and course-related materials are learned in advance at home (or outside of the classroom). When all these processes are compared, it can be thought that the student will meet the learning process with digital materials at home according to his/her competence at a time. This can be considered as a situation in which the error of accepting the same perception level of each student can be corrected in the traditional education model.

Method

Data Collection and Analysis

A total of 102 students from Near East University participated in the study. 65% of the participants were male and 37% were female. The data obtained as a result of the survey conducted within the scope of the research was analyzed with SPSS 23.0 package program and the findings were explained with tables.

Results

Table 1. Distribution of Students by Gender

	N	X
Woman	37	36,3
Man	65	63,7
Total	102	100,0

According to Table 1, a total of 102 students participated in this evaluation, 65 men, 37 women. The numerical distributions in this study are considered as a small model of the actual gender distribution of the study population. This data is also valuable in terms of the fact that the reality of the conclusions corresponds to the reality of gender.

Table 2. Distribution of Students by Age

	N	X
18-22	74	72,5
23-27	28	27,5
Total	102	100,0

According to the evaluation of 102 students participating in the study according to Table 3, it can be said that the students participating in the study and the research universe are in line with the average age of the students. When it is evaluated that the majority of university students are between the ages of 18-22 and a smaller portion is 23 years of age and older, it can be said that the age ranges of the research group were determined correctly.

Table 3. The Results of the Analysis of the Availability of Students' Internet Use in Education

	N	X
Yes	94	92,2
No	8	7,8
Total	102	100,0

In Table 3, when the results of the analysis of the suitability of Internet use in education are examined, it is seen that there is no significant deviation in terms of accessibility and usage of Internet use. Accordingly, it was

concluded that only 8 out of 102 students, ie 7.8%, had problems in accessing or using the Internet. It is thought that this problem is mostly caused by accessibility and deprivation related to opportunities.

Table 4. Results of Analysis of Students' Internet Usage According to Findings Useful in Daily Life

	N	X
Yes	102	100,0
No	0	,0
Total	102	100,0

Table 4. When the results of the analysis of the students' use of the Internet in terms of finding useful in daily life, regardless of gender or age, all working group individuals stated that the use of the Internet was found to be useful in daily life. The students expressed 100% positive opinion that Internet use has benefits in terms of use outside of courses or education.

Table 5. The Breakdown of Students' Daily Internet Use

	N	X
1 Hour	9	8,8
1-2 Hour	23	22,5
4> Hour	70	68,6
Total	102	100,0

Table 5. When the Distribution of Students' Daily Internet Use is examined, a large group of students (70 out of 102 students, this rate is 68.6%) use Internet for 4 hours a day, 23 students use the Internet for 1-2 hours and 9 people only 1 hour a day It is observed that more than 70% of the respondents use the Internet for 4 hours.

Table 6. Distribution of the Equipment Used by Students to Access the Internet

	N	X
Computer	65	63,7
Mobile Phone	93	91,1
Tablet	13	12,7
Other	4	3.9
Total	102	

Table 6: Of the 102 participants, 65 use computers, 93 use mobile phones, 13 use tablets and 4 use other devices. It is seen that, when the mathematical average of the participants (Percent) is examined, 63.7% use computers, 91.1% use mobile phones, 12.7% use tablets and 3.9% other devices. In other words, it is seen that users often have mobile phones with them, and the fact that Internet access is concentrated on mobile phones is seen as an important indicator that supports digital education everywhere.

Table 7. Students' Views on the Use of Reverse-Straight Classroom Applications and Their Analysis Findings

NO		X	SS
5	I learned the topics better because I could repeat the presentations and videos on the subjects at any time.	3,7	1,3
10	After Watching Videos From The Internet, I Learned Permanently When I Made Applications In The Lesson	3,5	1,2
3	With this application I can better identify issues I do not understand	3,4	1,3
13	With this application I have learned the topics in more detail	3,4	1,4
7	Since I could reach all the information and news about the unit from the website, I followed the course better	3,3	1,5
15	Since I have studied the subject in Inverse-Straight Class Practice, I have participated more in the course.	3,2	1,5
4	I Remember Better Through Inverse-Straight Class Practice	3,1	1,5
12	Involved More Straight Through Classroom Inversion	3,0	1,4
19	I Get More Permanent Learning Opportunity With Inverse Straight Class Model	3,0	1,5
20	I Evaluate My Time Better Through Inverse Straight Class.	3,0	1,6
11	With this application, I studied on the Internet according to my own learning speed	2,9	1,6

14	I did more research on the subjects I learned through reverse-straight class practice	2,9	1,5
2	Thanks to this application I have established more communication with my teacher and my friends	2,8	1,5
8	Performance Increased with Reverse-Flat Class Application	2,6	1,5
1	I asked my teacher more questions with reverse-straight class practice	2,5	1,5
6	Inverse-Straight Classroom Application is Unnecessary and Does Not Have Any Benefits for the Course	2,0	1,3
9	9. Inverse-Straight Class Application Takes Time.	2,0	1,5
16	16. Inverse-Straight Model Takes Much Time	1,8	1,2
17	17. I do not find the inverse-straight class model correctly.	1,7	1,2
18	18. I Don't Find the Reverse-Flat Class Model Safe	1,5	1,0

The table is sorted by positive and negative comments. Numerical Interpretation of the Table: 0-1 Strongly Disagree, 1-2 Disagree; 2.1-3 I am undecided; 3.1-4 I agree; 4.1-5 Strongly Agree.

When Table 7 "Students' Opinions on the Use of Reverse-Straight Classroom Application and Their Analysis Findings" were examined, the items that students reported as "agree Adina on behalf of the Reverse-Straight Classroom Application; When I wanted to repeat the presentation and videos about the topics I learned the subjects better (3.7), After watching videos from the Internet I learned more lasting applications in the course of the participants (3.5), I came to the course as I worked the topic learned more I participated in the lesson (3.2) evaluated with mean; arsis I am undecided Adina in the sense of another orientation, I can better identify the subjects that I do not understand with this application (3.4) I have learned the topics in more detail with this application (3,4) I have followed the course better since I can access all the information and news about the unit from the website Since I can reach all the information and news related to the unit from the website, I have followed the course better (3.3). As another orientation, the term orum disagree "takes time for the Inverse-Straight Class Practice. (2.0), Inverse-Straight Model Takes Many Time (1.8). I don't find the inverse-straight class model right. (1.8) Evaluated the Inverse-Straight Class Model as Safe (1.5).

Conclusion

As a result of this research, it is concluded that the flipped classroom education model we have examined has positive and negative aspects as in every model and even in many applications and concepts. But; Again, as in every conceptual and applicable issue, this model should be handled in terms of its outputs such as economic, profit-loss or benefit-loss. Regardless of the result obtained or the result of future research and applications, flipped classroom and some other applications will be transformative, innovative, unprecedented and innovative models for our education world.

Considering this modeling as a prevention of loss of time by taking digitalization into education will push both the teacher and the student to big mistakes and an irreversible sense of laziness. Since the time that teachers lose when transferring theoretical knowledge in the classroom is eliminated with this system, teachers should devote this time to practice, problem solving and reinforcement. Again, as in every system, this practice is internalized by all students and repeated monitoring according to their learning levels and allocating sufficient time is another important requirement. However, it is assumed that each student is technologically sufficient. Deficiencies in these points should also be identified and defects should be eliminated.

BIBLIOGRAPHIC REFERENCES

Arshad, R., & Naseer, M. (2019). Digital Transformation in Marketing Mobile Phones Industry: Evaluating Marketers Strategies for Cross-Cultural Advertisements. Online Journal of Communication and Media Technologies, 9(3), e201915. https://doi.org/10.29333/ojcmt/5841

Barreto, D. M., & Alturas, B. (2018). Quality-in-use app evaluation: case of a recruitment app for Portuguese SMEs. Quality-in-use app evaluation: case of a recruitment app for Portuguese SMEs, (1).

Bergmann J, Sams A. Flip Your Classroom Reach Every Student in Every Class Every Day 1st ed. Washington: Iste; 2012.

Bergmann J, Sams A. In Flip Your Classroom; Reach Every Student, İn Every Class, Every Day. ISTE Washington USA, 2012.

Çelik, M. Hacettepe Üniversitesi Eğitim Fakültesi Dergisi (H. U. Journal of Education), Özel Sayı 1:60-65 (2012)

Fateminasab, A. (2014). Investigating the challenges and barriers of convergence between Iran and republic of Azerbaijan, UCT Journal of Social Sciences and Humanities Research, 2(1): 18-24.

Kasımoğlu, S. Hacettepe Üniversitesi Eğitim Fakültesi Dergisi (H.U Journal of Education), Özel Sayı 2 (2012), 35-45

Merkibayev, T., Seisenbayeva, Z., Bekkozhanova, G., Koblanova, A., & Alikhankyzy, G. (2018). Oppositions in the conceptual and linguistic category of time. Opción, 34(85-2), 116-148.

Muyambiri, B., & Chabaefe, N. N. (2018). The Finance–Growth Nexus in Botswana: A Multivariate Causal Linkage. Dutch Journal of Finance and Management, 2(2), 03.

Paulsen, Morten. (2003). Online Education, Teaching And Learning. http://www.studymentor.com/studymentor/PartOne.pdf (Nisan 2005'te alınmıştır)

Saidi, S. S., & Siew, N. M. (2019). Assessing Students' Understanding of the Measures of Central Tendency and Attitude towards Statistics in Rural Secondary Schools. International Electronic Journal of Mathematics Education, 14(1), 73-86. https://doi.org/10.12973/iejme/3968

Seaman, G., & Gaines, N. (2013). Leveraging digital learning systems to flip classroom ınstruction. Journel of Modern Teacher Quarterly, 1, 25-27.

Verleger, M. A., & Bishop, L. J. (2013). The flipped classrom: A survey of the research. 120th ASEE Conference & Exposition. American Society for Engineering Education. 20-26 June 2013

Zownorega, J. S. (2013). Effectiveness of flipping the classroom in a honors level, mechanics-based physics class. Master's Thesis. Eastern Illinois University; Akt; Büşra G. Gençer a Neşe Gürbulak b Tufan Adıgüzel, International Teacher Education Conference 2014, Eğitimde Yeni Bir Süreç: Ters-Yüz Sınıf Sistemi