

FLIPPED LEARNING AND LIBYAN UNIVERSITY STUDENTS' ACHIEVEMENT

تأثير التعليم العكسي على أداء طلبة الجامعات في ليبيا

رشاد نجيب ابريدان

عضو هيئة تدريس / رئيس المشاريع و الاتفاقيات الدولية

جامعة عمر المختار - ليبيا

drbrydan@omu.edu.ly

Received: 31-05-2021

Accepted: 28-06-2021

Published: 30-06-2021

Abstract :

Because of the current and promising future of Flipped Learning, this study aims to discover its effectiveness on Libyan Students' achievement. Two groups of students were selected and double achievement test was prepared as pretest and posttest put into practice. The study proved that FLM helped Libyan students to improve their achievement by being more independent learners and highly responsible to improve their skills. Indeed, they agreed that FLM will lead to enhancing their knowledge and experience .

The author recommends arranging training programs and workshops for FL tutors and students on applying the concept of flipped learning strategy before implementation to ensure all positive benefits for Libyan students, and further studies in different disciplines are required to investigate other consequences of FL strategy.

Keywords: Flipped Learning, ICT Integration, Tourism Economics, Student, Personal Learning.

1. Introduction

As new educational technologies are developing and evolving very fast, university lecturers are facing critical challenges for learning and accessing them in order to present the content in a smarter, faster and better way (Prensky, 2010). As well as, the rapidly increased usage of new educational technologies, fortunately offered new and original opportunities for tutors/educators to engage and motivate new and existing learners regardless of their ethnic, religious, cultural, social and financial backgrounds. This new technology that we are trying to focus on right now, was harnessed in

implementing flipped learning model which in return has increased students' motivation and self-improvement / awareness (Bathker, 2011).

The Flipped Learning new technique is not just using an educational technology, it is a new technology-enabled an original teaching technique (Walsh, 2012) by considering Flipped Learning Model (FLM) as the latest technology that changed teachers' task, it also inverted their university working day upside-down, in which it offered more control of material and more face-to-face time with students.

On the other hand, FLM is using digital technology for shifting the direct instruction outside of the group learning space to the individual learning space. This will help Omar Al-Mukhtar university lecturers to maximize individual face-to-face time with students (Jon Bergmann & Sams, 2014).

The extra freed time can be used by students to cooperate with peers, engage more deeply with content, practice skills and translate that feedback on their progress. In addition to this important element, teachers can use the extra freed time to give students more control over their own learning aims by coaching, inspiring and helping them with other challenging projects (Hamdan, McKnight & Arfstrom, 2013). Therefore, FLM attracts the attention of academics, researchers and educators as well as funders such as Mr. Bill Gates who is a main backer of the famous Khan Academy (Toppo, 2011).

2. Study Research Hypotheses / Problems

This study concerns mainly with the problem of finding a new creative way for improving the learning process at Omar Al-Mukhtar University in Libya, in which the author realized the importance of Flipped Learning/teaching methodology that Libyan students desperately need for self-development. As well as, to guarantee their academic achievement and learning outcome aiming to be equipped with necessary employability skills in preparation for joining the labor market after graduation. On the other hand, there is a serious demand for clear and original teaching plans and strategies to take the Libyan Higher Education Quality Assurance up to the next level beside combining theory and practice in a well-designed standard. In this project of Flipped Learning Effectiveness in Libya, and for better results the author also involved two groups of students (male and female) from the first year studying Economics Science, taking into account all critical learning issues that caused lack of good educational achievement by previous graduates, so they can be quickly dealt with accordingly at present and in

future. Furthermore, the author realized the valuable opportunity for drawing a clear vision leading university students to proactively engage with flipped learning in order to overcome problems preventing merging generic competencies within their learning outcomes while doing a BA or BS university program, furthermore, it seems that there were no enough serious policies from the Libyan Ministry of Higher Education regarding this important methodology of Flipped Learning/ Teaching? Therefore, this study is considered as a stepping stone for other researchers, and policy makers to pay more attention for the direct benefits of FLM on the overall students achievement and the two groups of students were eventually convinced that the new flipped learning methodology should be used by lecturers at Omar Al-Mukhtar university for the following reasons:

- 1- To Shift the current Attention from Lecturers to Their Students.
- 2- To Develop Different Students ICT and Educational achievement.
- 3- To replace the Old Teaching Way with the New (FLM) Methods.
- 4- Helping the Libyan HE Policy Makers to be More Student Centered.
- 5- To Secure Libyan Students' Continual Self-Awareness/ Development.

Also working on external literature sources review and focused on work-field and experimental part results because this academic study is looked at as qualitative rather than being a quantitative research based. Accordingly, the author arranged for open discussions with graduates and lecturers with consulting the mentioned two main groups of (male & Female) students to examine the acceptance and effectiveness of Flipped Learning at Omar Al-Mukhtar University and what benefits can it offer to Libyan students now and in future.

3. Study Aims and Objectives

The aim of this study concerns with investigating the effectiveness of flipped learning in the subject of Economics on students' achievement at Omar Al-Mukhtar university. And this new upside-down way of teaching Libyan university students mostly refers to the level of mental and communicative algorithms applied during educational communications and interactions in order to reach the aimed and final results not only for Omar Al-Mukhtar fellows, but also for all Libyan and Arab universities students. FLM practices gave female students at Omar Al-Mukhtar university full control of their time management and decide for how many times each student would need to watch the online lecture till they understand and analyze the related academic

materials to discuss them with their educators at the classroom which is in favor of female students comparing to male students. The purpose of this study also to explore students' interpersonal skills in relation to adapting the new flipped learning / teaching methodology and the author is aiming to draw a clear vision leading to convenient flipped learning strategy in order to overcome the problems facing the lecturing process improvement and to investigate if there are barriers preventing Libyan students from adapting the new flipped learning style, further more; it seems that there were no enough previous studies nor serious policies from the Libyan Ministry of Higher Education regarding this important new academic teaching and learning methodology. There's no specific excuse or justification for not implementing FLM in Libyan universities. Therefore, by undertaking this academic work the author decided to open the door for academics and researchers to pay real attention, to write related articles and to do more efforts for improving university students understanding and acceptance towards flipped learning process positive outcome according to each area of specialization so Omar Al-Mukhtar University would be able to lead the revolution of FLM in the Libyan higher education sector. Moreover, the author has worked hard through academic literature, previous studies and consulted economics students' in the experimental part to decide if the flipped learning methodology must be adopted as the main teaching method in their BS Economics Subjects. This important FLM can also help Libyan higher education institutions to be more student centered in an advanced way rather than being lecturer's centered and this new methodology will provide a realistic opportunity for Libyan college students to develop the needed employability skills from different perspectives whilst illustrating their generic nature. BS and BA courses at Omar Al-Mukhtar University are often perceived by students as primarily quantitative. However, they should also include a range of more qualitative learning outcomes, including critical analysis and critical thinking skills: vital generic competencies that Jack and McCartney (2007) have encapsulated in their arguments for the importance of developing argumentative employees.

4. Study Methodology

The various academics, educational educators and researches are complementary to each other and their natural procedures are normally multidisciplinary and multi method as no single method of inquiry should be used in educational research (Din, 2010). The quantitative and qualitative approaches were used in this article design to collect, critically analyze,

discuss, evaluate and interpret the required data (Creswell, 2012). The qualitative research approach is the dominant in this academic study. As well as, it is to collect data in order to analyze if the FLM affects Libyan University students' overall achievement? Also, the Economics Achievement Test (EAT) tool was used, meanwhile, the qualitative approach was adopted in the final phases of this research by asking five lecturers in the treatment group samples crucial open questions about the advantages and challenges of the FLM and this research study including the new online method is significant for the following seven reasons:

- 1- This is a contribution to the ICT theory and FLM. It is the first study in Libya to integrate ICT and the use of FLM at Omar Al-Mukhtar university. The integration of ICT in teaching/ learning process remains a significant challenge for Ministry of Higher Education Approval.
- 2- This is an original contribution to the Flipped Learning research efforts and will add more knowledge to the ICT and FLM in Libya.
- 3- This study is important to Libyan policy makers for future higher education strategic planning to improve the teaching/ learning process.
- 4- This academic work may enlighten curriculum designers to improve the literature textbooks and FLM teaching methodology.
- 5- This article is a direct response to the Lecturing Strategies to use modern and different promising methods including video recording of different teaching practices, using educational technology and using interactive cases in teaching (UNESCO, 2008).
- 6- Making and developing video lectures to be used by tutors can be an added value to develop more videos lectures for other scientific topics in other subjects, using it as suitable resources purposefully (NCCA, 2007).
- 7- Due to the author's 9 years' experience in higher education tells that this study is important to light the way well for other academics and decision makers to use ICT effectively in FLM for supporting lecturers to do their job in better ways. Also this study will help in implementing and utilizing ICT differently in the Higher Education System when processing and evaluating the curriculum in light of the 21st century which requires new competencies and using more up to date technology. In addition, the researcher found no other study that exclusively has explored the ICT integration or the FLM in the Economics education for university students in Libya. Thus, the results from this study has contributed to the body of knowledge and minimize the gap between students' performance and achievement.

5. Study Motivation and Literature Review

The twenty-first century has already witnessed a tremendous progress and improvement of different sorts of technologies in various academic fields, one of which is the Economics Science and Omar Al-Mukhtar Students today are comfortable with more up to date electronic devices and very keen on social contexts and related collaborative activities. Educators and academics must work hard to find out how to proactively integrate this new and more up to date technology to be influencing on the educational teaching, learning and research process. This is to enhance collaborative learning and to utilize this important tool for redesigning learning and instructional systems (Karimi, & Hamzavi, 2017). Other researchers added that the integration of technology in the process of teaching today resulted to a successful teaching and learning of scientific subjects. Flipped learning Model is now considered to be one of the newest active learning approaches at Omar Al-Mukhtar University that positively incorporate technology into homes and classrooms to create better learning opportunities for college students and to offer motivating home and classroom atmosphere (Basal, 2015). Also, Flipped learning focuses on switching in-class instruction time with at-home practicing time using technology, especially videos (El-Bassuony, 2016). As well as, according to Obari & Lambacher, (2015) Flipped Classroom Model is seen as a distinctive educational environment, which is rapidly growing in popularity among educators worldwide in the higher education sectors. It is literally a pedagogical model in which classroom lectures and homework elements are reversed. In a flipped classroom, students learn the course lectures (i.e. through online and recorded videos, course, and materials, etc.) before they come to class, and spend most of the classroom time in interactive discussions and workshops asking and answering valuable questions. It inverts classical teaching, where the instruction part is delivered outside of the class while homework is done in the classroom (Du, Fu & Wang, 2014). It seemed that the new higher education strategy of FLM at Omar Al-Mukhtar University had not yet been critically examined in the Libyan context. Thus, this current study is designed to investigate the effectiveness of implementing the Flipped Learning Classroom Model as an alternative teaching strategy of traditional Economics lecturing methods normally used in teaching Economics in Libyan higher education to produce the designed outcomes of learners and to improve students' ability to understand and manage the dynamics of social interaction, also they require both diagnostic and action skills to be able to read behavior and act in ways that will bring about the required learning outcomes and to achieve the same

end in mind. Furthermore, Libyan academics, lecturers and educators while adopting this new teaching methodology must be supported by higher education policy makers, designers and university BS & BA programmers who should obviously provide a well-designed and clear structured comprehensive overview of the interpersonal skills required for effective functioning competencies at work to present a micro-skill approach to employability skills development, and in simple English words any good and creative lecturing methodology would be more effective if it delivers the right learning income to guarantee the aimed outcomes. Another important feature of this new higher education teaching methodology that it can lead to the inclusion of a wide range of exercises to help university students to monitor their own behavior, identify areas for improvement and practice new ways of relating to others while studying at Libyan Universities.

5.1 Flipped Learning Problem Statement

Libyan FLM students do not have the opportunity to practice their learning skills or to engage in professional use outside of the classroom because of the lack of communicative competences (Elabbar, 2011). And the same case is repeating itself with our Economics students at Omar Al-Mukhtar university which means that one of the reasons behind this is the absence of meaningful interaction, also due to the traditional Economics teaching methods applied in Libyan colleges and universities. Borg, (2009) stated that Libyan teachers use traditional teaching methods because they see these methods as more useful and even beneficial for their students.

Also, it is because of that these methods are easier to use and do not require much efforts, and other tutors use traditional teaching methods because they are influenced by their own experience as students that they tend to repeat the role of their former educators. As well as, Elabbar (2011) points out that a lot of Libyan lecturers are affected by learning beliefs of traditional Libyan classroom methodology in which teachers are the authority in their classroom and has more control over students' interaction and participation as they are the only source of knowledge. According to other scholars, many Libyan teachers in the higher education sector still believe that the most important teacher's role is to explain segments in a traditional structures to students without taking into consideration their students integration and feedback. Libyan classes are teacher-centered and students are passive recipients. The interaction in the classroom is teacher to students and it's a one way

communication process. So the outcome of these traditional method are students who are unable to communicate effectively in real life (Sawani, 2009). This may be one of the most problematic aspects that resulted of teacher-centered methods. Elabbar (2011) and Sawani (2009) point out that Libyan lecturers usually avoid using the Communicative Lecturing Teaching Approach because it does not provide enough guidance to the tutor and because lecturers and learners are affected by the typical silent culture of learning, that may restrict the use of this approach. Moreover, literature in the Libyan context shows that students pay most of their attention to develop their knowledge and skills in their exams at the expense of the communicative value of learning the subject (Aloreibi & Carey, 2016). Aloreibi and Carey (2016) state that FLM college students in many of the Libyan universities have low achievement. Rajendran (2010) adds that Libyan "university students fail to understand the meaning of even the commonly used Economics terms like supply chain, demand, inflation, income, macroeconomics, microeconomics, econometrics, economic system, customers' expectations and economic resources.

5.2 Studies Related to Flipped Classroom

In recent years, flipped classroom model (FCM) has become a popular pedagogy in a lot of higher educational institutes all over the globe and the impact of this new lecturing strategy has been explored in many international studies, for example, an Arabic study carried out by Ahmad (2016) aimed to investigate the flipped classroom model impact on listening comprehension of Egyptian university students. Participants were 34 male and female college students. The researcher adopted one-group pre-posttest design. And the pretest on listening comprehension was applied before the experiment also the posttest after it and the final results indicated that the flipped learning method had a significant impact on listening comprehension. Another study conducted by the same researcher, Dr. Ahmed in a related article in (2016) to investigate the impact of flipped classroom on students writing skill and students' attitude towards the flipped lecturing and the participants of this study were a mixture of 60 Saudi students at Qassim University, divided into 30 students as an experimental group and 30 students as a control group. The data collection tools were an English Flipped Learning writing test and a questionnaire. The experimental group was taught by flipped classroom model while the control group was taught by the traditional old way. At the end, both groups were post- tested. Results indicated that the experimental group performed better than the control group in the post-test. In addition, the questionnaire results

were in favor of the flipped learning method. This positive result can be attributed to using flipping in a similar way in Libyan universities to shift from teacher-centered classroom to student-centered Flipped Learning Model. Moreover, Al-Harbi and Alshumaimeri, (2016) carried out a study to test the effect of the Flipped Learning Classroom Strategy in teaching English and related subjects on performances, perceptions, and attitudes of local Saudi institutes students. And participants were assigned into two main groups; experimental group (20) and control group (23). The experimental group students were asked to watch selected videos, based on their textbook. Whereas the control group students received traditional teaching way the was adapted over the years. The results of the post-test indicated that applying the strategy of the Flipped Learning Classroom Model (FLCM) had a real significant impact on increasing the students' overall performances. The questionnaire responses and interviews showed positive attitudes regarding the use of flipped teaching.

5.3 Flipped Classroom and Libyan Educators

Moreover, Basal, A. (2015) conducted a study to explore Libyan university teachers' perceptions of the Flipped Learning Classrooms as well as the implementation of this model into an English class. Participants of this study were 47 prospective English tutors. Basal used a qualitative research methodology for his study. Open-ended questions were used for collecting data. He concluded that educators showed positive perceptions toward using the flipped learning model (FLM) in the classroom.

This academic study also concluded many benefits of applying the flipped learning methodology in the classroom in terms of saving the class time and for better and easier school students achievement, learning at one's own pace and students' engagement in the class. The study recommended applying the flipped learning methodology in departments and contexts having reviewed the pertinent literature, and it was concluded that new flipped learning application in the classroom model plays a substantial and proactive role in increasing students' proficiency levels and performance in various areas of improvement. Hung (2015) states that college classes implemented by flipped learning instructional methodology would help lecturers to lead their students to improve their academic performance and to put what they have learned into beneficial practice. However, because this teaching strategy is relatively a new trend, there seems to be a lack of research applied and measured the effects of

such a new teaching and learning model in the Libyan higher education context.

Furthermore, this takes us back to the objective of this study to determine whether the flipped classroom learning model would improve Libyan university students overall achievement and empower the literature of the Libyan Flipped Learning Technology context. According to (Lo & Hew, 2017) one strategy for incorporating technology like videos and video lectures is the flipped classroom. El-Bassuony (2016, p. 76) states that “Flipped learning (FL) is considered to be one of the most active learning approaches that focuses on switching in-class instruction time with at-home practicing time using technology, especially videos.

5.4 The Flipped Learning Features and Benefits

There are many features and benefits resulting from the good use of FLM in Libya as it is convenient for all university students because it has positive effects and can focus on all types of learners (Sams & Bergmann, 2013). Better questions and deep thinking from students are the results of using the new trend of FLM as the year progressed (Green 2012) listed some benefits of using this methodology like/ such as increasing students engagement time in doing homework inside classrooms, getting an immediate feedback, enhancing collaboration team spirit and increasing access to the necessary technology. Flipped learning can also be considered as a good example for personalizing learning method. Although the use of Information Communication Technology (ICT) in the Libyan higher education sector is still very limited and there isn't a clear comprehensive (ICT) policy in most of Libyan universities until now, the integration of ICT in the teaching / learning process remains a significant challenge for method of evaluation (MOE). For example, the method of evaluation in Libya has to be implemented objectively and one of the strategic options and anticipated results for the MOE is “activating and applying ICT in an objective way in the Libyan Higher Education Sector (MOEHE, 2014) According to (Leask, 2005). There are research proofs which indicates that when ICT is effectively deployed, students motivation and achievement are raised in a number of respects. In more literature review of flipped learning, Libyan researches are limited and the author suggest conducting more researches about FL effectiveness and to maximize its potential in the Libya HE sector. There is a need for conducting more studies on the effects of Flipped Learning Model on Libyan university student's achievement as there is little rigorous empirical

research on the effects of Flipped Learning on student achievement (Hamdan et al., 2013).

5.5 Flipped Learning Motor Skills Model

This flipped learning motor skills model (Figure 1.1) was developed during this study, which is about performing a skill as a result of practice or experience and it will be one of the most frequently cited models of FL interaction, it posits that flipped learning effectiveness may increase in the light of the reactions of Libyan university students. The sequences of behavior that occur in FL interaction are viewed as lecturers can take corrective action when learners are talking too much by interrupting, asking closed questions or looking less interested.

This model draws the attention to the importance of FL effectiveness and enhancing students capacity. The effectiveness of FLM is vary as open-ended questions make learners talk more and that closed questions make them talk less and creatively learn more skills.

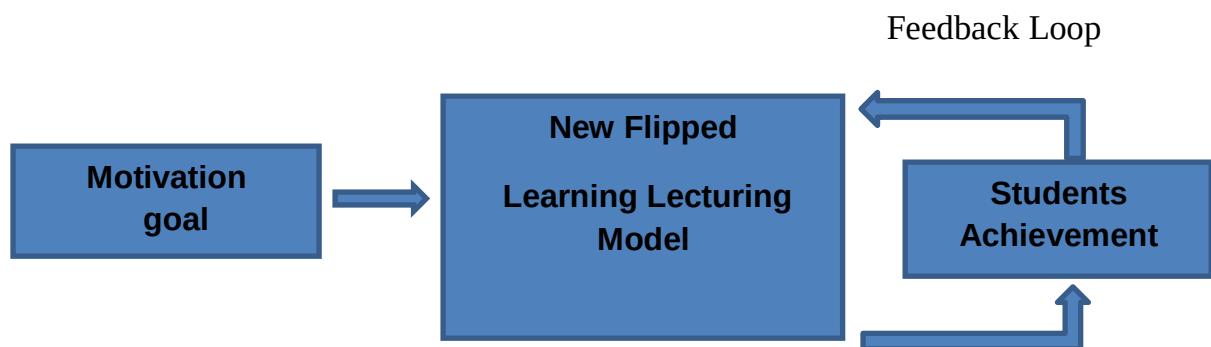


Figure 1.1 Flipped learning feedback mode.

(Source: the figure was inspired from Lobdell, 2013)

Flipped Learning Motor Skills Model involve keeping students comfortable and happy, preventing them from leaving or keeping the intimacy at the right level. And once Economics students understand the FLM would help them to develop new motor skills so they will be able to:

1- know that the FLM will help learners to critically assess the effectiveness of their employability skills at every level.

- 2- Describe the hierarchical structure of motor skills and explain how this offers the possibility of breaking down complex employability skills into their component parts.
- 3- Understand the contribution that conceptual FL models and theories can make a dramatic improvement on motor-skills training.
- 4- Understand the difference between cueing and learning and how the experiential flipped learning model can help economics students to improve their experience and refine their learning interaction.

5.6 Students Preparation for Classroom FLM

Flipped classroom can be considered as a start step to change the role inside the classroom from teacher-centered to student-centered academic approach. It supports students' involvement (direct/ indirect) engagements by using the constructivist theory. This will also may require that Libyan teachers and educators improving and mastering relevant instructions before using the flipped classroom concept (Miller, 2012). Information and Communication Technology integration in teaching/ learning process requires Libyan University Economics lecturers to expand their knowledge of pedagogical practices across multiple aspects of planning, application and evaluation processes (Mndzebele, 2013).

On the other hand, creating video does not mean recording the tutor inside the classroom while lecturing by using the video camera only as majority of teachers creating videos by making a screen cast utility which is capturing the computer screen such as slide show of Power Points presentation, recording voices; include a small webcam of the lecturers faces, using digital pen for solving problems or highlighting main issues and so on. And the convenient average video time is about 10–15 minutes long (Sams & Bergmann, 2013). At present, internet access is available publically, at any time in most homes in Libya and learners can view the online flipped classroom materials according to their own pace (Roehl et al., 2013).

Learners can use any suitable device such as PCs, laptops, tablets, Notebooks, iPods and smart phones to access the videos on the internet during their suitable time and from any place they want to such as schools, buses, parks, homes... etc. They can prepare the lessons well before going to class by viewing the videos many times according to their pace and level of

understanding (Sams & Bergmann, 2013). There is a need of consulting experts and parents about implementing the methodology of FLM. The rationality for such dramatic learning change is the required preparation which is different than the traditional one.

5.7 Inside the Flipping Classroom

Modern learning become student-centered and lecturers can use the active learning strategies inside the classroom. Libyan tutors can use the freed time for integrating and applying learners prepared knowledge by conducting research or working on projects with classmates. Also, lecturers have the time to check student's individual understanding and help them to develop procedural fluency if needed (Hamdan et al., 2013). Sams and Bergmann (2013) required students to watch videos outside classroom and come up with interesting ideas they might add, questions that they don't know the answers for and other notes about the videos as a verification of watching the video lectures. Inside the classroom, they might open the class with learning questions or clicker poll to check for students understanding instead of begin lecturing. Libyan Economics lecturers can also check on students understanding before coming to classroom by collect their responses and reactions about the class-video material by using online tools. The flipped classroom management is easier than the traditional one and more challengeable. The lectures' energy was consumed in managing students in the traditional classroom to keep them focusing, listening and quiet without noisy. While managing the flipped classroom requires different perspectives that it is filled with activity, engagement, inquiry, and learning. As well as, Embi (2011) introduces twenty Web 2.0 software tools in education in his book. He also discussed the applications in details. In general, each application contains the following headings:

- 1- What the application is.
- 2- Application Advantages.
- 3- Application ways of usage.
- 4- Usage in teaching and learning.
- 5- Get started with the application.

The majority of Web 2.0 applications support collaboration and educational interactions between learners by encouraging active user participation in

creating, sharing and structuring data (Safran, Helic, & Gütl, 2007). Web 2.0 is participative, convenient to include many concepts, and it is comprising equal parts of evolution and revolution. It challenges outdated attitudes towards the rights of the user, users choice and empowerment (P. Miller, 2005). "Web 1.0 took university students to information; Web 2.0 will take information to Libyan university students" (P. Miller, 2005). This new model of using Information and Communication Technology in flipped learning might place a high priority on inspiring and empowering Libyan University Students to experiment and learn from their own mistakes, and they might deliberately resist the temptation to 'take them by the hand' and tell them precisely what they need to do to improve their performance. They may behave this way because they believe that a more prescriptive helping flipped learning approach would encourage economics students and trainees to become too dependent on their own time management and would improve their learning outcomes.

5.8 Flipped Learning Creative Communication Skills

Flipped learning requires proactive communication skills to encourage students to succeed in their future careers. Researchers indicated that communication competencies are influenced by the interaction with surrounding environment and Lecturer-Student interaction. Supportively, Adler and Rodman (2006) strongly narrated that communication Motor Skills are affected by interaction with the learning environment and they can be learned through well designed learning process (Kayi, 2006). Flipped Learning methodology communication skills improvement can be carried out based on the social inferential learning theory by maintaining tutor-student interaction that constructs students' knowledge (Arends, 2012) and through a well-organized learning strategy.

Evidences obtained in previous articles and related studies also show that learning wisdom based model has been effective in improving students' problem solving and communication skills. The model was developed from inquiry learning that is expected to encourage university students' to enhance their communication skills abilities. (Dewi, Poedjiastuti, & Prahani, 2017). The finding is relevant with results of an academic research conducted by Duran (2014), Trilling and Fadel (2009) who reported that inquiry learning has been able to develop students' problem solving and communication competencies. In addition, several other studies have proven that the implementation of process-oriented guided-inquiry learning (POGIL)

successfully enhanced students' higher order thinking skills which include problem solving skills (Prodjosantoso, 2018). Similarly, learning models in Libya that engage local culture as learning resources are also associated with significant improvement in students' cognitive and generic competencies (Sochima, 2013) and it involves the potentials of local wisdom in learning process (Dewi, Poedjiastuti, & Parhani, 2017). Therefore, it can be understood that this learning model gave significant effect on preserve economics students' problem solving and communication competencies.

5.9 Professional Flipped Learning Educators.

Flipped learning requires high class professional educators. We see that educators are professional and skilled, but a university flipped educator must move beyond the traditional lecture and practice. Libyan higher education flipped educators must determine when and how to shift direct instruction from a whole group of students to the individual learner. They must know how to maximize their time with students in the classroom (Hamdan et al., 2013).

It is a daunting and demanding task to become a flipped educator. As stated earlier, all tutors are skilled and professionals, but Charlotte Danielson (2008) reported that an excellent teacher is one whose plans and practices have a wide range of effective pedagogical approaches and the ability to anticipate student misconceptions and excellent lecturer will thoughtfully and precisely measure a lesson's efficiency and the extent to which it accomplished its instructional goal.

University skilled and professional tutors are embarking on a drastic pedagogical change from being the sage on the stage to the guide on the side (Baker, 2000) must thoughtfully and carefully prepare for a flipped classroom environment. Libyan flipped educators must know when to shift direct instruction from the group to the individual learning space, and know how to maximize face-to-face time between lecturers and student which means flipped educators must be constantly observing their students, providing them with relevant feedback at the exact moment, and continuously assessing their work (Hamdan et al., 2013). Other scholars reported the key elements in fostering a flipped classroom are to provide an opportunity for students to gain exposure prior to class, provide incentives for students to be prepared for class, provide a mechanism such as a pre-test or pre-class assignment to assess Libyan students for their understanding and holding them accountable for their learning, and finally provide in-class activities and experiments as did Lage et al., (2000) in their economic classes that focused on the higher levels of

cognitive learning activities. In doing so, these higher-order thinking activities will deepen Libyan student understanding and increase their motor skills at using the new knowledge acquired. The development of a flipped classroom conceptual framework is no easy task and is quite extensive if a tutor plans on implementing it into their classroom. A university educator should not take lightly to flipping their classroom because it is the new fad in education. Educators must be ready to flip their classroom not only by adopting the model, but instead how can they effectively utilize and implement the flipped classroom to assist students in gaining conceptual understanding and student-centered instructions and engaged active learning activities should already exist in classrooms.

5.10 How can lecturers flip their classrooms?

For lecturers who are wondering how to invert a classroom and ready to get started using flipped teaching model, they can follow these steps:

1. Determine the right technology

Since flipped teaching models rely too heavily on technology to create and share videos of lectures, tutors must be choosing the technology that can best help them film, edit, and share videos. And it is a crucial first step that requires a hosting service and determine how students will access all of contents. Additionally, Libyan tutors will need to track progress. A learning management system (LMS) will help them keep everything streamlined in one place as they launch their program.

2. Creating Videos and Content

When it's time to film, keep it short and nice. A tutor will be very surprised to learn that what used to take 15 minutes to cover in a lecture can usually fit into a five-minute video! since lecturers won't have to worry about classroom management. They don't need to be afraid as they can also seek out videos and other interactive content from quality open educational resources (OER) providers.

3. Being Transparent With Students and Parents

Before launching, clearly explain what flipped learning is and why are we doing it? Making a major change in the classroom culture is hard work, and

flipping the mindset is not easy. Be prepared to address concerns and to revisit the "how" and the "why" often.

4. Making Students Accountable

Flipped learning model depends on student participation. If they're not keeping up with the at-home learning, the whole class will grind to a halt because students won't be prepared to engage with hands-on activities. To check on students participation a short formative quizzes at the beginning of a lesson will help to determine which students did their homework, which didn't, and who needs help. If lecturers are using an LMS, then they can get these results on time, enabling them to differentiate instructions accordingly.

5. Keep It Up With FLM

This element requires finding a schedule and system that works for teachers so that filming, lesson planning and assessment all become normal routine. And once they have a system in place, leverage it so they can focus on students instead of on the nuts and bolts of developing their units. Many educators are using a flipped classroom as part of flexible learning. However, flipped learning and flexible learning, while there are similarities, are different and for flipped learning to occur in Libya four pillars have been identified that must be met.

These pillars are; **Flexible environment, Learning culture, Intentional content and Professional educator** (Flipped Learning Network 2014). Flexible learning provides learning experiences based on understanding Economics learners and increasing their choices of what, when, where and how they learn. Such choices may include a mix of activities which are class-room based, on-line or mobile, using a range of tools such as technology devices, learning management systems and social media interaction websites. Changing to flipped learning will often be an individual decision made by the educator. However, an educator may be directed to change to flipped learning by their institutes. Many factors should be considered when this decision is being made. For example, the authors are both educators teaching within an Economics bachelor's degree program. There are many positive aspects of flipped learning such as providing students with the opportunity to learn in their own space and time increases their learning opportunities and maximizes the learning that takes place. Other aspects include increasing student comprehension, interaction and critical thinking (Marshall, 2013). Therefore,

the original idea of flipped learning for Libyan students should not be dismissed. When new ideas are presented in the literature and at education conferences, it is perhaps natural for educators to refuse to change as a result of no experience, as a result when an educator is deciding whether to make the change to a flipped learning pedagogy, it is important to gain a clear understanding of what flipped learning is, as opposed to a flipped classroom, and consider all aspects such as the level of study the student is at, the content, the culture, and requirements by other university. Another important factor is that adopting Classroom Flipped Learning Model should point the necessary employability competencies in all units/ subjects in a well-designed way so that students of Omar Al-Mukhtar University can be equipped with the required employable interpersonal competencies to build the main required employability profile alongside with developing their subject specific knowledge to gain the necessary work experience so they can be ready for working in the right business sector or and contribute to the best of their abilities. As noted above, there are known benefits to flipped learning but adapting flipped learning approach differently is important for Libyan students according local environment and market needs, further research needs to be undertaken and is planned.

6- Study Experimental Part

Economics FL participants were divided to experimental and control group (see the below figure 1.2) to examine the impact of flipped learning on learners achievement, this was the quantitative tool and the qualitative tool was adopted by asking five academics in the treatment group two crucial open questions about the advantages and challenges of the Flipped Learning Model and the final decision was in favor of FLM using ICT Tools.

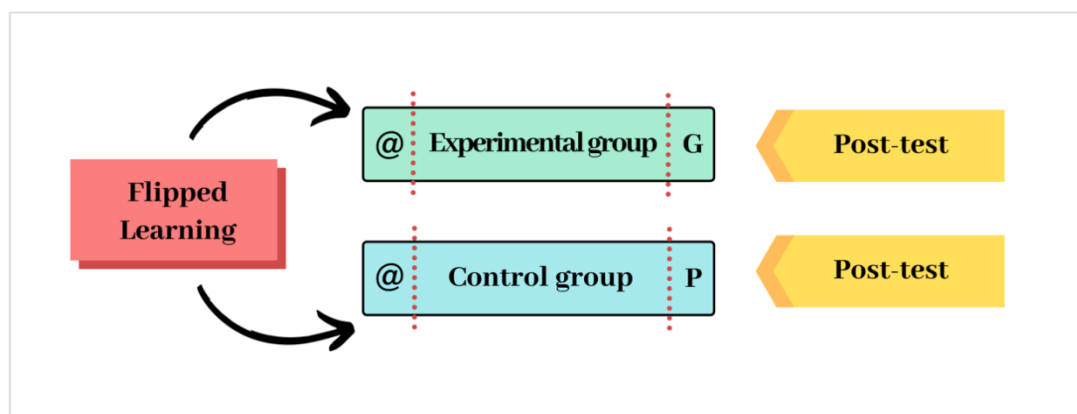


Figure 1.2 Flipped learning group samples.

(Source: Flipped Learning Network 2014)

The test was prepared and administered twice for the same students as pretest and posttest (see the below figure 1.3). And both quantitative and qualitative data were collected by the final achievement test. The descriptive deep analysis was used for the quantitative data and in terms of students' achievement score, it is found that female Flipped Learners' score was better than the male' Flipped Learners result, depending on personal interest and self-motivated. And pretest score was not statistically significant; while it was significant for posttest score in benefit of Flipped Learning students which means that there were real positive effects on FLM Students' achievement.

Subject	Gender	Pretest Score	Posttest Score
Tourism Economics	Male	92	186
Tourism Economics	Female	147	250

Figure 1.3 Pretest & Posttest Score

This resulted that Omar Al-Mukhtar University Lecturers in general must adopt the Flipped Learning Model to be student centered and invest in their development regularly with being intended to encourage students to build their own self-learning strategy.

7. Conclusion and Recommendations

7.1. Conclusion

The findings of this study proved the promising future of Flipped Learning Model effectiveness to helped Libyan students to improve their achievement. Because it encouraged them to be independent learners, highly responsible for their own learning and how to improve the relationship with their tutors. Moreover, learners had positive thought on Flipped Classroom to improve their skills. Indeed, they agreed that this model will help them to enhance their knowledge. The results could be useful as university lecturing technique to improve Libyan university students' achievement. The results of the present study provided concepts of flipped teaching and learning methodology with new technologies to Libyan tutors and learners.

7.2. Recommendations

- 1- Arranging programs and workshops for FL tutors and students on applying the concept of flipped learning strategy before implementation and its positive benefits.
- 2- Encouraging tutors to use new flipped classroom instead of traditional teaching techniques while teaching, will benefit students to build a better future in real life.
- 3- Conducting similar studies in different disciplines is needed to investigate the effectiveness of flipped classroom in developing students' achievement.
- 4- Recommending further articles and academic studies on the effect of using the flipped learning methodology/ strategy in other Libya universities.
- 5- Using Flipped Learning Model with ICT is the future for successful higher education systems in Libya and neighboring countries to produce quality graduates.

8. References

- 1- Adeyemo, S. A. (2010). The Impact of Information and Communication Technology (ICT) On Teaching and Learning. PP, 123-125.
- 2- Agommuoh, P., & Ifeanchi, A. (2012). Secondary School Students' assessment Of Innovative Teaching Strategies In Enhancing Achievement In Physics And Mathematics. PP, 23-25.
- 3- Aina, J. K. (2013). Integration of ICT into Physics Learning to Improve Students' Academic Achievement, PP, 117-121.
- 4- Bates, S., & Galloway, R. (2012). The inverted classroom in a large enrolment introductory physics course: a case study. PP, 128.
- 5- Bathker, K. (2011). Educational Technology in a Flipped Classroom Setting. PP, 143.
- 6- Bergmann, J., & Sams, A. (2012). Flip your classroom: Reach every student in every class every day: International Society for Technology. PP, 193.
- 7- Bergmann, J., & Sams, A. (2014a). Classroom Management and the Flipped Class. PP, 154.
- 8- Borko, H. (2004). Professional development and teacher learning: Mapping the terrain. Educational Researcher. PP, 13–15.
- 9- Bergmann, J., & Sams, A. (2014b). Flipped learning: Maximizing face time. PP, 145.

- 10- Berrett, D. (2012). How 'Flipping' the Classroom Can Improve the Traditional Lecture. *Education Digest*. PP, 36-39.
- 11- Bishop, J. L. (2013). A Controlled Study of the Flipped Classroom with Numerical Methods for Engineers. (PhD), Utah State University. PP, 146.
- 12- Black, T. R. (2002). *Understanding social science research* (Second Edition ed.) PP, 123.
- 13- Blaxter, L., Hughes, C., & Tight, M. (2010). *How to Research*, 4th Edition (Fourth Edition ed. Vol. Fourth Edition). PP, 176.
- 14- Brunsell, E., & Horejsi, M. (2013). Flipping Your Classroom in One" Take". *The Science Teacher*, 80(3), 8. Butzler, K. B. (2014). PP, 183.
- 15- Learning Environment. (PhD Ed.D.), Northcentral University. ProQuest Dissertations & Theses Global database. PP, 133.
- 16- Adeyemo, S. A. (2010). The Impact of Information and Communication Technology (ICT). PP, 143.
- 17- Agommuoh, P., & Ifeanchi, A. (2012). *International Journal of Social Sciences & Education*. PP, 213-215.
- 18- Aina, J. K. (2013). Integration of ICT into Physics Learning to Improve Students' Academic Achievement: Problems and Solutions. *Open Journal of Education*. PP, 246.
- 19- Bates, S., & Galloway, R. (2012). The inverted classroom in a large enrolment introductory physics course: a case study. PP, 117.
- 20- Bathker, K. (2011). Educational Technology in a Flipped Classroom Setting. PP, 168-169.
- 21- Bergmann, J., & Sams, A. (2012). Flip your classroom: Reach every student in every class every day: *International Society for Technology in Education (ISTE)*. PP, 195.
- 22- Bergmann, J., & Sams, A. (2014a). Classroom Management and the Flipped Class. PP, 182-184.
- 23- Bergmann, J., & Sams, A. (2014b). Flipped learning: Maximizing face time. PP, 29-32.
- 24- Berrett, D. (2012). How 'Flipping' the Classroom Can Improve the Traditional Lecture. *Education Digest*. PP, 36-41.
- 25- Bishop, J. L. (2013). A Controlled Study of the Flipped Classroom with Numerical Methods for Engineers. (PhD), Utah State University. PP, 56-57.
- 26- Black, T. R. (2002). *Understanding social science research* (Second Edition ed.). PP, 117.
- 27- Blaxter, L., Hughes, C., & Tight, M. (2010). *How to Research*, 4th Edition (Fourth Edition ed. Vol. Fourth Edition). PP, 191-194.

- 28- Brunsell, E., & Horejsi, M. (2013). Flipping Your Classroom in One" Take". The Science Teacher, 80(3), 8. Butzler, K. B. (2014). PP, 69.
- 29- Khalid, K. A. A., (2017) Learning and Teaching in English: A Case Study of Higher Education in Libya. Doctoral thesis, Liverpool John Moores University. PP, 138.
- 30- Kember D and Leung DYP (2005) Studies in Higher Education. PP, 30.
- 31- Milman, N. (2012) The flipped classroom strategy: What is it and how can it be used? Distance Learning. PP, 85-87.
- 32- Rolfe G (2006) Validity, trustworthiness and rigour: quality and the idea of qualitative research. Journal of Advanced Nursing. PP, 297–301.