

Application of the Flipped classroom strategy in teaching Arabic to children with special needs

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Abstract:

Relying on educational technology and moving from traditional learning to E-learning (electronic learning) has become an imperative necessity, due to the developments that we experience daily in the current time at various levels: social, health, economic... This situation called for taking advantage of the means, programs and applications provided by technology, whether during in-person, distance education, or the combination of the two of them in the so-called "blended learning", as well as for the possibility of applying this strategy to the category of children with special needs. In this research, we focused on this matter, on one of the latest forms of this modern education, namely: Flipped Classroom strategy. We tried to highlight what flipped classroom is, its advantages, the challenges that stand in the way of achieving it, particularly with special needs category and what faces it as difficulties, and then suggestions for how to benefit from this classroom in facilitating the teaching of Arabic.

Keywords: Strategy, Technology, Blended Learning, Special Needs, Flipped Classroom.

Introduction:

Nowadays, the world is witnessing an accelerating development in technology, especially in means and methods that are instrumental in serving people, increasing their information and upgrading their capacities. Scientific technical progress and development have become dependent on new factors, foremost of which is the interest in the educational system and making it one of its priorities, by virtue of its position in leading society with thought and knowledge for a bright present and a brilliant future. Currently, it has become imperative for officials to adapt the educational system to the prevailing technology, because of the importance of educational technology in developing education and work, facilitating and enriching the educational process and influencing the learner who is the focus of this process. Therefore, educational technology must be integrated into the educational programme.

Since children with special needs category is one of society's categories, it was necessary to think about a project that can take care of them, integrate them within society and try to apply modern educational strategies to them. Despite that, this experience is at its beginning simple, in implementation of the decisions of some Arab countries since 2017 about the eligibility of integrating a child with a mild disability with their peers of ordinary pupils in school, in order to make them acquire knowledge and communication skills that make them live independently and face the social situations.

The reliance on these strategies is essential to ensure both success and quality in education outcomes. Talking about technological developments, in general and in the field of education in particular, makes us feel the importance of applying these innovations in education as well as in teaching children with special needs, within the so-called blended learning framework, specifically a very important adopted strategy that combines traditional learning and e-learning which is education according to the flipped classroom.

Problematic study:

- 1- Can blended learning be applied to children with special needs?
- 2- Are schools ready for this integration? Do they possess the required qualifications for this integration, including teachers, classrooms and administrators?
- 3- How does the flipped classroom strategy contribute to teaching Arabic to children with special needs?

Study methodology: In this paper, we used the analytical descriptive approach in order to present and define the integration of children with special needs in the ranks of ordinary pupils, and how successful the flipped classroom strategy in teaching Arabic and analysing its pros and cons in the educational process.

1. Definition of educational technology:

Education is an important basic indicator on which the progress and development of states and societies are measured, as their development is primarily based on the outcomes of the educational process, whether from people or competencies formed and capable of advancing their societies, or through the physical

products of science represented in advanced devices. Based on it, it is necessary to develop the education field, especially since traditional methods no longer meet the requirements in a changing and accelerating world. Supporting education in its traditional style with a number of means and devices that raise its efficiency and spread over the shortcomings and negatives that hinder the educational process has become among the main necessities of education in the modern era.

The concept of education technology has been sequenced from classical to audiovisual education. The audiovisual industry is credited with introducing the concept of alternative communication in the field of education. It played a major role in highlighting and clarifying the theoretical concept of education technology, so the focus has become on the process of transferring information from the source to the receiver. Behavioural sciences have also had an impact on education technology, starting with the immediate reinforcement process of Skinner and its application in programmatic education adding to other behavioural theories¹. The process is summarized as follows:

- ✓ **First stage:** Visual education t
- ✓ o audiovisual education to education through all senses. In this stage, we note that the focus was on targeting the individual and learner's visual and audiovisual potential (sight and hearing)².
- ✓ **Second stage:** Educational means to support teaching, not controlled. In the second stage, educational means continued to be a specific auxiliary element to apply teaching methods in order to activate the educational method and accelerate the learning process.
- ✓ **Third stage:** Educational medium is an effective mediator between the teacher (sender) and the learner (receiver). At this stage, actual communication takes place, and the educational medium plays an important role in this. Its absence violates the process of scientific communication.
- ✓ **Fourth stage:** It is the stage of systems. Systems are a set of overlapping and interactive elements that work together to achieve a specific goal. That is, educational means are an element of a set of integrated ones in the educational process, as they are used to achieve educational goals. They are part of the educational system called educational technology means³.

2. Shift from traditional education to e-learning:

"The development and progress in the field of education technology has led to the emergence of many technological innovations, the use of which in the educational process has become an urgent necessity, to benefit from them in the efficiency of the educational process. The use of modern communication mechanisms such as computer, its networks and multimedia: sound and image, graphics, research mechanisms, e-libraries and online portals helps both the teacher and the student on the network of teaching and learning process to go beyond the walls of traditional classrooms, so the information is delivered in the shortest time and with the least effort, as well as achieving the greatest possible benefit and new opportunities for interaction between them"⁴

Therefore, the shift from traditional education to e-learning requires a set of necessities as follows:

- 1- Shifting from the teacher's control of learning to the learner's control, as he is responsible for his learning by managing his activities and developing his personality through understanding, creativity and solving his own problems.
- 2- Providing the necessary material and human requirements for e-learning.
- 3- Preparing appropriate e-programs and courses, in addition to training the elements of the educational system to deal with that electronic environment.
- 4- Careful planning, developing a detailed phased plan for implementation, gradually expanding it, and amending the plans in light of the results of the phase.

Traditional and modern education can be compared as follows:

| Traditional Education | E-Learning |
|---|--|
| The classroom is in a specific place | Anywhere is good for a classroom |
| School time is limited | Any time is good for the lesson |
| Textbooks are based on words and drawings | E-books are equipped with audio-visual effects |

¹ Ahmed Zaher, Educational Technology as a Philosophy and System, Academic Library, Cairo, Egypt, 1st Edition, p. 58.

² Ibid., p. 58.

³ Abdelhay Ahmed, Educational Means and Techniques for Information Technology, Zahraa Al-Sharq, Egypt 2008, p. 21.

⁴ Adel Khoja, Taous Wazi, Information Technology in Higher Education, Mechanisms of Using Information Technology in the University System, Journal of Humanities and Social Sciences, Special Issue, p. 384.

| | |
|--|--|
| | and include scientific animations and films |
| Student privacy is not available | Student privacy is available |
| Learning depends on the speed or pattern of comprehension | Learning is not affected by fast or slow comprehension |
| Contacting colleagues and the teacher during the lesson in the classroom | Questions for teacher are unlimited |

Table (2) shows the difference between traditional education and e-learning⁵.

Based on the above, traditional education and e-learning can be compared as follows:

- 1- Modern teaching methods develop scientific thinking among learners, teamwork, and the ability to innovate and creativity. They face individual differences between students, and problems resulting from the large increase in the number of learners.
 Traditional methods, however, do not allow students to do any educational activities and thus become passive.
- 2- Traditional methods neglect the skills of research, reading, exploring, expressing opinion, and discussion among students. The use of technology as direct teaching tools instead of learning tools helps the student to learn with them, not from them.
- 3- E-learning systems contribute to changing the ways in which technology is used from its traditional roles to technology as tools, so that a classroom studying geography, for example, can see satellite images showing the terrain, and students will learn about the link between the terrain and the climate, and how different climatic conditions arise, in addition to simulating this relationship by employing multimedia in delivering the content of educational curricula to students, such as the movement of wind and heat factors....etc.
- 4- Also, if we compare traditional with modern teaching, we find a great difference in the roles of both the teacher and the learner. In the traditional educational system, the teacher plays the master role in transmitting information to students. He also interprets this information, and may use the prescribed books. In the educational technology system, the teacher plans to employ a number of means to convey information to students, or to attract them in order to obtain that information for them to practice roles that make the educational situation more flexible.

3. Definition of blended learning:

It is a modern educational strategy that combines traditional education and e-learning, achieved by educational technology innovations that provided computerized educational mechanisms and means, facilitating the educational process.

There is are multiple nomenclatures of blended learning, due to the different views on the nature and type of blended education; however, they all agree that blended education is a mixture of e-learning and traditional education. This mixture takes place through the use of traditional learning tools and methods, with e-learning ones correctly, according to the requirements of the educational situation⁶.

It is also difficult to set an accurate definition of the concept of blended learning. All existing ones are overlapping. For the definition to be correct, it must be inclusive, while this condition is not met in the definitions of blended learning, as they intervene with e-learning and do not have distinguished specifications. Teachers, learners, experts and specialists have different visions of blended learning.

Some defined it as a new form of training and learning programs that appropriately mixes classroom and e-learning according to the requirements of the educational situation, aiming to improve the achievement of educational goals at the lowest possible cost. Thus, it is "a hybrid model of e-learning that allows the existence of traditional teaching methods alongside to modern e-learning resources and activities in one course."⁷

Blended Learning is a training that combines teleprompter and interactive e-learning. It also allows a group of students to follow the lesson with the teacher in the classroom, while another part of them work individually to understand and apply the lesson through ready-made online materials or through e-learning

⁵ Walid Salem Al-Halafawi, Educational Technology Innovations in the Age of Informatics, Dar Al-Fikr, Amman, Jordan, 1st Edition, 2006, p. 62.

⁶ Abdul Ati Hassan Al-Baie, and Khomeini, Mohammed Rashid, The effect of the difference between the two types of blended and traditional training in developing some computer use skills among basic education school teachers in the Sultanate of Oman, research submitted to the International Conference: Higher Education Technologies,, p 1 Muscat Sultanate of Oman 2010, p. 16

⁷ John, Allison Little, and Piggles, *Preparation for the blended e-learning*, trans: Othman bin Kris 2012- p. 56-

platforms.⁸ Any type of content can be presented during blended learning, by dividing the subject matter into parts, some of which are explained in the classroom, while the rest can be presented through other methods to students.

4. Components of blended learning:

Blended learning is composed of the following elements:⁹

1- Oriented education:

It is the main part of the educational process, through which the instructions are taught to the student in a traditional way. Teacher and students must be in the same place to explain the lesson. In special cases, this can be done remotely, using videoconference techniques for the students to meet the teacher interactively face to face.

2- E-learning:

This second part of the blended training is achieved by investing in digital platforms or interactive websites. This component represents part of the student's self-education at the beginning, and then the content can be discussed in the lessons in which the student meets his teacher, either directly in-person or remotely, through an interactive platform.

5. Types of blended education:

Blended training is conducted according to different methods, each of which can only be achieved by mixing traditional education with e-learning. These are some of the blended learning methods:

1- Flipped education:

This type of blended learning provides class time in active learning. While learning materials and training material are provided to students before the time of oriented classes, these materials can be sent by email or different platforms to students.

2- Alternating education:

This type of blended education has a balance between face-to-face education and e-learning. This type is often used in cases where students need more help in practice and support from the teacher, as he can explain the material in realistic classes, and supports students through electronic means in conducting exercises and mastering the subject matter.

6. Dimensions of blending in education:

This educational method initially came to link traditional education with the outcomes of technology for the purpose of benefiting from modern technology, and then soon the term evolved to include a richer set of learning strategies. Blended education program may include one or more dimensions as follows:

- 1- Improving the quality and effectiveness of education, and increasing student participation.
- 2- Supporting students' performance with modern technological innovations.
- 3- Achieving interaction between teachers and educational content, whether directly or indirectly.
- 4- Reducing education expenses as most applications are available free of charge online.
- 5- Acquiring computer skills through the use of electronic applications and programs.

7- Definition of special education and its categories:

- The field of special education has recently gained the attention of doctors, psychologists, educationalists and other researchers in the field of exceptional children, in search of educational strategies that suit them, or the possibility of integrating them into regular education. The definitions of special education are various, yet most of them refer to the need to seek methods in order to teach the category of special needs and integrate them into social life as an ordinary category. Some definitions include:¹⁰
- Special education is to educate and teach individuals who cannot learn normally, but need special methods of education and reaching a certain level in order to change their behaviour, so they can contribute to society and face life situations.
- It is also defined as a set of specialized educational programs offered to people with special needs, in order to help them develop their abilities to the fullest extent, realize themselves and help them adapt to individual differences and needs. This process involves individually and systematically planned arrangements and learning procedures

⁸ Three Critical Components for A Successful Blended Learning Classroom", thriveglobal, Retrieved 8/2/2022. Edited

⁹ Understand the core elements and most common models of blended learning.", avidopenaccess, Retrieved 8/2/2022. Edited.

¹⁰ - Mersal web site - definition of special education and its categories. <https://www-almrsal-com.webpkgcache.com/doc/-/s/www.almrsal.com/post/1058233>

- Special education is the set of educational programs and practices designed for students with learning disabilities, mental health problems or other disabilities. Where their mental ability, physical capacity and emotional functions require special teaching methods, equipment or care inside or outside the regular classroom. Special education includes techniques, exercises and a subject designed for students whose educational needs cannot fit the standard school curriculum

There are many categories of special education, some of which can be included in ordinary public classrooms as follows:

1. Deafness and blindness:

This category includes those with hearing and visual impairments that do not allow them to learn quickly as their normal colleagues.

2. Autism:

Autism means that children may have difficulty expressing or controlling their emotions, communicating, and making friends. Autism children may also make repetitive movements, focus on ideas, and become very sensitive to their sensory environment.

3-Speech or language disorder:

This means that the child has problems speaking or communicating, they may not speak academic Language, stutter, and may have a kind of voice impairment, which prevents them of speaking.

8- Aims of special education:

Special education is adopted for the category of children with special needs, who have a deficiency in some sensory or mental functions, and the most prominent objectives of it are the following¹¹:

- Identification of exceptional children through measurement and diagnostic tools, which are appropriate for each category of special education.
- Preparation of educational programs for each category.
- Preparation of teaching methods for each category.
- Preparation of educational and technological tools for each category
- Taking into account individual differences among students by guiding and helping them to grow according to their abilities and aptitudes.

9-Experiences of integrating special education into public education:

- ✓ Everyone has the right to education, thus employees in charge must provide it for all. When disability was representing 3%, it is constantly increasing, it was necessary to think about modern methods to teach children with special needs. In addition, it needed to integrate them effectively into regular education schools, especially after the positive results achieved by the experimental integration process. Hence, it was unnecessary to isolate them in special education schools; instead, been integrated breaks down their barriers that restrict them and limit their participation in usual life activities.
- ✓ The topic of integration has attracted the attention of a large number of scientists who are interested in this category worldwide, and at all levels, in particular at the educational one, based on the fundamental rule, which states that democracy assumes that all individuals within any society are equal in rights and duties.¹²
- ✓ children. It also emphasized on children with special needs to attend regular schools, as well as the conference of (Dakar, 2000), which resulted in its work... interesting. Many international conferences were held in the matter, such as the Conference of (Salamanca, 1994) sponsored by UNESCO. It adopted and endorsed inclusive education as a strategy for the development and dissemination of education to all categories of Moreover, many fields of research have demonstrated the effectiveness of the integration strategy for children with special needs with their ordinary peers and its positive impact on multiple aspects of these children's lives.
- ✓ The topic of integrating children with special needs in regular schools with their colleagues of ordinary children becomes increasingly In special need education inclusion programmes, teachers use a special educational curriculum for less than half a day. Students with special needs spend most of their day in regular classrooms, while special education teachers in schools with integration policies

¹¹ See: Marwa Mohamed al-Baz, Teaching Methods for Persons with Special Needs, Specialization in Science, Faculty of Education Department of Curricula and Teaching Methods, Port Said University Egypt

¹² see: Ihab al-Beblawi, Mr. Ali Sayed Ahmed, Contemporary Issues in Special Education, Dar al-Zahra al-Riyadh 2012, p. 42

spend most of their time developing relationships with certain students, accompanying them to the classrooms, and ensuring that they receive the appropriate support and opportunities

- ✓ Since education in general has benefited from technology innovations in its methods and means, it was necessary to invest this in teaching children with special needs and integrate them into regular classrooms to learn Arabic and its subjects, and one of the most important results of educational technology is the so-called blended learning.

10-Applying the flipped classroom strategy in teaching students with special needs:

Traditional education is an important building block in the educational process, despite its many negatives, as the focus on the inverted method has a negative impact on students and their ability to discuss, innovate and solve problems, in addition to the boredom and monotony that accompanies this type of education. This made specialists think about the modernization of education by investing in the outcomes of technology. They mix classical education with e-learning. The flipped classroom strategy is one of the main educational methods that came to challenge the negatives of the traditional method and enhance the student's interactive skills. This does not mean that flipped education does not have negatives. Indeed, each teaching strategy has pros and cons. Here comes the role of the teacher or the teaching entity in deciding whether the flipped classroom strategy is appropriate or not suitable for the current situation.

When thinking came about the necessity of integrating children with special needs into general education with their regular peers, it was necessary to apply modern educational strategies that are applied outside regular classes to spread the types of blended education, and to invest in the achievements of technology to advance education, and the flipped classroom is one of the most appropriate strategies for this group. In some educational materials, of course, and here we take one category to apply it to as a study sample, which is the category of blind people.

Flipped classroom is an educational strategy that aims, in short, to transfer the solution of jobs and problems from home to the classroom, and to transfer lecturing from the classroom to home, that is, the opposite of what happens in the classic lesson where the lecture is given in the classroom and the homework is done at home. The teacher provides students with the lesson recorded (or online) with all teaching media, files and references they need to understand the lecture at home. The next day, what they have learned is discussed with their colleagues and the teacher in the classroom, and their skills in solving problems are applied together. This is exactly what is appropriate for the blind group, as well as others with special needs, because because of their visual disability, they may be delayed in comprehending and understanding compared to their normal peers, but this method gives equal opportunities in carrying out and preparing the lesson, as well as the possibility of parents helping them to present their achievements with their peers in the hall. the lesson.

11- Motivations behind applying the flipped classroom strategy On children with special needs:

In traditional education, the teacher often faces some difficulties that hinder the learning process. This called for thinking of an innovative way to solve these problems. The most prominent obstacles that became motivations for blended education later are the following:

- 1- The presence of students who have different speed of comprehension and apprehension, that is, individual differences.
- 2- Integrating students with special needs requires giving them ample time to master the lesson and comprehend all its elements.
- 3- Students do not focus on a lot of key information in the classroom.
- 4- Students are absent from some classes for some reason.
- 5- Lack of time within the classroom often prevents the teacher from discussing some key lesson elements, and conducting exercises and applications to strengthen the understanding.
- 6- The weakness of some students requires repeating the lesson or explaining it more than once, and this affects the rest of the activities.
- 7- Some students may forget some of the information or skills they have received within the classroom, which affects the proper completion of their homework.

12-Teaching stages according to the flipped classroom:

Flipped classroom education is a teaching strategy for regular educational programs. To implement it, stages must be taken into account for both the teacher and the learner, as follows:¹³

- Advance planning: During which behavioural goals are set by adjusting the appropriate educational content and related skills, choosing the appropriate technological style, in addition to identifying activities inside and outside the classroom.
- Before the lesson, the teacher must prepare appropriate electronic content for the subject of the lesson, or search for appropriate online material, videos or applications and programs, to determine the activities and tasks of each of the students before coming to the classroom.
- Identify learning activities before the lesson: Solve all problems associated with daily life.
- Flipped training outside the classroom: The student reviews the electronic content, devises concepts, and understands the lesson.
- The final assessment stage of the formative process: During this stage, the teacher evaluates and corrects the students' feedback and makes sure that the objectives have been achieved, then discusses and listens to the students' questions.

13 -Applying the flipped classroom strategy in teaching oral expression to the blind group :

| Stages | Oral expression teaching |
|--|---|
| Advance planning | Oral expression about the city of Algiers (listening, reading and Conversation skills) Determine the general framework of expression and the elements of expression (introduction, body, conclusion) |
| Electronic content preparation | Orienting students to some videos and audios about the city of Algiers (history, nature, streets) on YouTube, for example |
| Identify learning activities before the lesson | Instructing students to to listen to reports or videos about the city of Algiers to invest in the ideas as elements in writing expression |
| Flipped training outside the classroom | The student examines and listens to YouTube videos about the city of Algiers and extracts elements and ideas to use in expression. |
| Final in-class assessment | Presentation of oral expression within the classroom Assessing expression content Students' questions about the lesson Preparing for the new lesson |

14- Pros of employing flipped classroom strategy in the learning process:

Flipped classroom strategy is a systematic pedagogy that achieved important results, and went beyond many of the complexities of traditional education, It also provided good results in experiments applied to people with special needs including the following:

1- Taking into account the individual differences between students:

- All students, despite their different cognitive abilities, can follow the lesson from home at a speed that suits their intellectual abilities, unlike inside the classroom, where the teacher delivers the lesson so that only some students can follow it, not all of them at the same level. People with special needs find an appropriate opportunity, whether in terms of time or educational material, to prepare and understand the lesson away from the classroom.
- Teaching according to the flipped classroom strategy allows the possibility of returning to an element of the lesson if it is not understood or overlooked by the student while watching the video, for example, while this is not available in the traditional classroom. If the student requests repeating the lesson, this will be boring for the rest of the students. Especially if he has a disability, this makes the matter worse and may affect him psychologically, making him introverted and feel inferior compared to his ordinary colleagues.

¹³ See: Atef Abu Humaid Al-Sherman, Blended Learning and Flipped Learning, 1st Edition, Dar Al-Masirah, Jordan 2015, p. 197

- Taking the lesson at home allows recording all questions, which helps the teacher answer the largest number of questions.

2- Parents are introduced to the academic programs:

Moving the lesson home in an electronic format enables parents to learn from the lessons and information their children receive in their classrooms. This enables them to be better prepared to help them or answer their questions in case students need it,. Especially the student with special needs, he needs the help of his parents more than others, not to mention psychological support while receiving the lesson.

3- Encouraging self-learning:

In the flipped classroom, the student relies on himself to understand the lesson, and then discusses it with his colleagues, This enables the student with special needs to prepare well for the lesson on his own, as he possesses the technological educational tools and means that suit his disability.

15- Cons of employing flipped classroom strategy in the learning process:

Although the positives of the flipped classroom strategy are numerous, it has disadvantages and difficulties that hinder its success. Some of these cons are presented as follows:

1- Availability of internet:

Internet is the main sponsor of the success of flipped classroom strategy. It is not possible to follow the electronic educational material with its absence, while we all know the problems of internet in our country, especially where high quality network is unavailable. Many students find it difficult to learn according to this strategy, mainly those whose social level is modest, or who do not possess digital devices such as computer or smartphone.

2- Damage to students' exposure to the screen:

Since learning according to the flipped classroom strategy depends on the student sitting in front of the computer screen, tablet, or smartphone to receive lessons on a daily basis, this may pose some health damage to him (such as poor vision, headaches, depression) , It may rely entirely on digital learning, which in turn reduces the student's productivity and ability to absorb.

3- Increasing the effort on the teacher:

In the flipped classroom strategy, the teacher prepares the content of the lesson in advance, either by recording it or orienting students to ready-made online videos and applications, in addition to supervising and discussing lessons, answering questions and ensuring an interactive atmosphere in the classroom. Also, if teachers in public schools include students with special needs in their class, their efforts will double, because the student with special needs, whatever his condition, needs special care compared to his ordinary classmates.

4- Modest preparation for exams:

Due to the application of flipped classroom strategy in many educational materials, the student finds himself exhausted, physically and psychologically tired, so he is unable to prepare well for the exam and finally gets a poor outcome.

Conclusion:

In light of the technological development and the innovations of digital education, criticism of traditional education has increased, which called for adopting a blending strategy in the field of education, while maintaining regular programs (textbooks) and educational skills. Managing the flipped classroom, despite the positive results it has achieved in the field of Arabic language teaching materials, it does not lack negatives and obstacles.

To conclude, this research paper drew the following results:

- Any pupil with any type of disability has the right to education as well as other ordinary pupils.
- In blended learning, there are many appropriate strategies for teaching special needs such as the flipped classroom strategy and hence the possibility of integrating them into regular schools.
- Special courses are required for teachers in regular schools to train them with appropriate techniques, because children with special needs always need special care even within the regular classroom.
- In the presence of many difficulties facing the application of this strategy, specialists in the field of promoting education must search for more effective alternatives, suitable for the social and economic conditions of both of ordinary pupils and pupils with special needs in the Arab countries

- Flipped classroom strategy focuses on intensifying homework, while the modern approach calls for reducing homework to zero for the success of the educational process. This procedure has been followed by some countries, such as Finland.

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