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UTILIZING TECHNOLOGY IN THE CLASSROOM

By
Udara Joseph De Silva

Supervised by
Prof. Salvatore Fava Ph.D.

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Declaration

I do hereby attest that I am the sole author of this thesis and that its contents are only the result of the readings and research I have done.

Udara Joseph De Silva

ABSTRACT

Modern technologies in education are considered a means by which a new educational paradigm can be implemented. Trends in the development of educational technologies are directly related to the humanization of education, contributing to self-actualization and self-realization of the individual. It also implies an educational aspect associated with the formation and development of the personal qualities of students. In its most general form, technology is a well-thought-out system of "how" and "how" the goal is embodied in "a specific type of product or its component part. This paper examines the importance of inculcating technology in the classroom at different school levels. Also, this paper highlights how technology can be integrated and how learning system can benefit from it. In doing so, the researcher has studied literature already available on the topic and analyzed the literature to come up with new conclusions.

SUMMARY

New technologies, which in educational contexts often refer to information and communication technologies (ICT), offer enormous potential in the classroom. In many African countries, the availability of these technologies is limited, but this situation is changing rapidly. New forms of ICT are constantly appearing. The experience of those with knowledge of ICT is not always useful in knowing how new forms of ICT can be used most effectively in an educational context. Rather than being presented as a guide to how to use them, this key resource gives one suggestions on what attitude to adopt as a teacher in the face of new technologies. Students may need help to acquire basic skills: it is important to develop good habits in the classroom and to create positive attitudes towards the use of ICT (Maich, & Hall, 2016).

Contents

INTRODUCTION

The concept of modernizing education puts forward new social requirements for the school system. The main and secondary task is to improve the efficiency of the assimilation of educational material, aimed at improving the modern quality of education. A general education school should form an integral system of universal knowledge, skills, and abilities and the experience of independent activity and personal responsibility of students, which determines the modern quality of educational content. Improving the quality of education should be carried out not at the expense of an additional load on students, but through improving the forms and methods of teaching, selecting the content of education, through the introduction of educational technologies focused not so much on the transfer of ready-made knowledge, but on the formation of a complex of personal qualities of students.

The younger student prepares for adult life and acquires knowledge but participates in various activities. The use of modern pedagogical technologies makes it possible to solve educational problems and form a child's readiness for independent knowledge of the world around him. Since the middle of the last century, the term "pedagogical technologies" has firmly entered the pedagogical lexicon. However, there are still disagreements in understanding the term "pedagogical technology" and its use. Pedagogical technology is considered the science of the most rational ways of teaching, as a system of teaching principles, and as a technique for implementing the learning process. The term "pedagogical technology" is sometimes used as a synonym for the term "pedagogical system," and sometimes it is equated with methods. This

circumstance was the reason for the analysis of existing interpretations of the term "pedagogical technologies" in order to more clearly define the essence of this concept. Pedagogical technology is a description of the process of achieving the planned learning outcomes (Evans et al., 2013).

Of course, it is impossible to teach a child everything, to give him ready-made ideas and knowledge about literally everything. But they can be taught to acquire knowledge on their own, analyze the situation, draw conclusions, find a solution to a problem or problem that they did not solve. Focusing efforts on improving the quality and efficiency of educational and educational work, it is necessary to ensure that each lesson contributes to the development of students' cognitive interests, activity, and creativity, and therefore to improve the quality of teaching. The urgency of this problem is of great importance at the present time for a number of reasons. According to the concept of modernization of education, society makes certain demands on the school. The main and paramount task is the need to improve the quality of education. This is possible by improving the forms and methods of teaching through the introduction of educational technologies. But at present, in real school practice, the number of children who have difficulties in learning is increasing and requires special attention. And all this negatively affects the further intellectual and personal development of the child. Thus, there are contradictions between:

- Frontal forms of education and individual methods of educational and cognitive activity of each student;

- Between the content of education and the increased number of children who are not ready for schooling;

-The predominant explanatory and illustrative way of teaching and the activity-oriented nature of teaching (Ditzler et al. 2016).

Purpose: disclosure of the system of work to improve the quality of teaching of primary school students through the use and implementation of educational technologies in the educational process.

Tasks:

- To create pedagogical situations of communication in the classroom, allowing each student to show initiative, independence, creativity;

- To intensify the cognitive activity of students

To contribute to creating an atmosphere of interest for each student in the work of the class, to create a situation of success in the lesson, to increase educational motivation.

- Ensure the activity-oriented nature of learning through the inclusion of students in independent knowledge of the world around them, mastering practical ways of working with information;

- Stimulate students to speak out, use various ways of completing assignments without fear of being mistaken and getting the wrong answer.

Estimated results:

- Learning motivation and cognitive interest of students will increase.

- There will be a genuine interest in the knowledge of the surrounding world;

- Schoolchildren develop such abilities as independence, creativity, initiative;

- Improving the dynamics of the quality of education.

MODERN PEDAGOGICAL TECHNOLOGIES

Technology - from the Greek words techno (art, craft, science) and logos (concept, teaching). With the help of technology, intelligent information is translated into the language of practical solutions. Technology is both ways of acting and how a person participates in an activity. (Evans et al. 2013). Pedagogical technologies are complex systems of techniques and methods, united by priority general educational goals, conceptually interrelated tasks, and content, forms, and methods of organizing the educational process, where each position leaves an imprint on all others, which ultimately creates a certain set of conditions for student development (Ditzler et al. 2016). The use of modern pedagogical technologies in the classroom in primary school Problem learning technologies

How to make an ordinary lesson unusual, how to present uninteresting material interesting, how to speak with modern children modern language? We ask

ourselves these and many other questions when we come to class today. The teacher must possess personality-oriented, developmental educational technologies that take into account different levels of readiness for learning at school. The development of a student's modern personality is carried out in the process of his own activity, aimed at "discovering" new knowledge. Among the variety of modern educational technologies, some teachers have singled out for themselves those that, in their opinion, can be used in working with primary school students. For example: technologies of personality-oriented, developmental, problem-based learning, as well as game, project, health-preserving and information and communication technologies (Davison, & Lazaros, 2015).

One cannot do without the technology of problem learning or without its elements in any modern lesson. This technology's relevance is determined by the development of a high level of motivation for learning activities, enhancing the cognitive interests of students, which becomes possible when resolving emerging contradictions, creating problem situations in the classroom. In overcoming feasible difficulties, students constantly need to master new knowledge, new ways of acting, skills, and abilities. The solution of educational problems has a positive effect on students' emotional sphere, creates favorable conditions for the development of children's communication skills, and develops their individuality and creative thinking. In addition, the ability to see problems, ask questions, put forward hypotheses, define concepts, conduct observations and experiments, draw conclusions and inferences, work with the text, prove and defend their ideas leads to

the achievement of educational results such as the ability to independent cognitive activity, the ability to be successful in a rapidly changing world, etc. Creating problem situations in the classroom is one of the ways to develop the creative thinking of younger students. Problem-based learning methods can be applied in the classroom, creating a problem situation at any stage (Courts, & Tucker, 2012).

Problematic learning activates mental activity, without which it is very difficult for a student to study, especially with interest. The majority of students develop a positive motivation to study subjects, cognitive interest—the development of students' intellectual and creative abilities increases. The communicative mode of problem learning and self-study allows one to rationally organize and educate mental work culture (Clarke, & Zagarell, 2012).

THE TECHNOLOGY OF THE ACTIVITY METHOD

This technology synthesizes non-conflicting ideas from the concepts of developmental education of leading teachers and psychologists from the standpoint of continuity with traditional schools. With the effective use of the activity method, Meta subject results of education are formed, logical, and variable thinking develops, high efficiency of participation of schoolchildren in competitions and competitions at different levels is ensured (Cevasco, & Hong, 2011).

INFORMATION EDUCATIONAL TECHNOLOGIES

A lesson using information technology becomes more interesting for students, as a result, it becomes more effective assimilation of knowledge; the level of clarity in the lesson improves. Improving the effectiveness of the lesson through clarity. Of course, this can be achieved by other methods (posters, maps, tables, chalkboard), but computer technology undeniably creates a much higher level of visibility. To obtain new information and broaden the horizons of students in the classroom and outside the classroom, teachers use presentations, which they compose using material taken from Internet resources. Children watch slides with pleasure, take an active part in the discussion of what they saw. For the lessons of the surrounding world, the presentation is just a godsend. Pictures of the nature around us, animals, seas, oceans, natural areas, the water cycle, food chains - everything can be reflected on the slides. And it is easier to check knowledge: tests, crosswords, puzzles, charades - everything makes the lesson exciting, and therefore memorable (Ballew, 2017).

Over the past decades, technology has experienced increasing expansion. For students with LDs (learning disabilities), the proper use of technology has given them a chance to iron out some difficulties. In addition, technology has also helped a large majority of these students to show their full academic potential while giving them renewed confidence (Aviles, & Eastman, 2012).

A POSSIBLE SOLUTION

Using technology in the classroom is about trust. One has to take risks and know how to direct their efforts. It is not the teacher's role to know how to use the tools well, it is their role to know how technological tools can be useful in learning and how these tools can help students with difficulties. Teachers have to capitalize on the possibilities that technology can offer their students without becoming overwhelmed by what is called "buttonology", the how-to. Teachers need to be confident that students will be able to help each other when it comes time to use a new tool, website, or application. The teaching professional remains the master of pedagogy. Starting by taking small steps, that is, by trying new technologies and allowing oneself to make mistakes. While attempts are not always perfect, we are starting a culture of change in classroom that will undoubtedly have an impact on the school life of students in the 21st century era.

Whether by sharing a collaborative document such as Google Docs or Word Online, integrating a blended learning activity (for example, virtual teaching or using technology and teaching directed), or simply to allow students to use the variety of digital possibilities to submit their work, the important thing is to get started and trust students. By adopting a learner posture, the teaching professional demonstrates to his students the importance of being open to new possibilities. Letting go and propelling oneself to the discovery of new technologies in collaboration with all students is to welcome change in order to evolve. Students will demonstrate motivation when faced with technological challenges. Suddenly, little by little they will

learn, following the model presented, to collaborate with each other, discuss possible solutions, carry out tests, plan next steps, explain procedures or concepts, demonstrate critical thinking and listen to the ideas of others. These are all skills that teachers want to encourage in all of their students. And for students with LDs, knowledge and mastery of various technologies will offer a new avenue to success (Davison, & Lazaros, 2015).

On the path to personalization of learning, technology empowers students by enabling them to engage. It offers an education adapted to their digital life and prepares their future. With technologies and access to resources outside the classroom, students find inspiration to become problem solvers, critical thinkers, collaborators, and creators. Indeed, when technology has been appropriately incorporated into classrooms, students develop a lasting passion for learning. Teachers are constantly striving to personalize learning. Technology can help them cross new thresholds with access to real-time student data, cross-cutting information, content, applications, etc. It also enables hybrid learning environments to be created and digital tools for formative and summative assessment to be leveraged, providing classes with new models of learning and teaching (Armstrong, 2011).

Schools have the difficult task of choosing the devices and technological models that will enable them to realize their vision of transforming learning. These decisions must be taken by the various actors concerned and involve the evaluation of the ways in which the devices are used by teachers and students for daily learning. Stakeholders must take into account the curricula at each level, the content needs and

how the devices will be used in and outside the classroom. This is not an easy task, but factors such as compatible digital content and programs, evaluation conditions, management options, security features, device functions and overall cost of ownership are key to choosing the right device. A secure and reliable IT infrastructure forms the basis for a 360-degree learning experience. In addition, it is suitable for digital content, protects essential student data, improves operational efficiency, provides the security and privacy protection needed in today's schools (Allwardt, 2011).

With a holistic, technology-driven approach to personalize learning, create connected and efficient classrooms, and a powerful and secure IT infrastructure, Intel helps institutions improve the experience for every student and teacher. Teachers need to be properly trained and supported using lifelong learning resources and professional communities. All of these factors add to the transformative and lasting impact on the success of all students (Merç, 2015).

ICT makes it possible to use "software" which can greatly help students, either individually or in groups, but they are not all equal. As a teacher, one needs to think carefully about which ICT applications are useful, just as one would decide which books are the most useful. The most expensive technologies are not always the most efficient. Audio clips or radio lessons, which have been around for a long time, are still very effective - but today one can enjoy them on mobile phones and computers in addition to radios and cassette players. Presenting student work using word processing software can be excellent, but it is important to remember that good

presentation is not the same as good learning. Mere use of new technologies "for presentation" does not exploit their learning potential (Kim et al. 2015).

The most likely thing to use ICT in the classroom is when the teacher implements learning and carries out learning assessments. In the implementation of learning in the classroom when the teacher delivers the subject matter according to the basic competencies to be achieved, of course the teacher needs various media and learning resources that can make it easier for students to understand the material being taught. This is where the teacher's ability to present technology in classroom learning is needed.

Technology will never replace the role of the teacher, but teachers who do not take advantage of technology will soon be replaced. The teacher must always learn throughout his life, because if a teacher stops learning, then in truth he has stopped being a teacher. This thought should be used as motivation for teachers in updating their competence, especially in using technology in learning. Moreover, the current Minister of Education and Culture is a millennial figure who is very skilled in the latest technological developments, of course in future education policies will develop ICT-based learning (Kaufman, 2014).

PROS OF SMART CLASSROOMS

Smart classrooms use modern methods to cut into the entire teaching process, making the classroom simple, efficient and intelligent, and help develop students' independent thinking and learning ability. In the traditional teaching process, there are problems in many places. For example, if the class is large, the time wasted is no less than 5 to 10 minutes. But in the smart classroom, teachers can use computers, mobile terminals, pads, etc. to teach. In teaching, they can use the sign-in function. Students automatically sign in through the mobile terminal, and the teacher can see the class arrival situation at a glance. Teachers can save the time wasted in class roll call and increase the teaching time (Kaufman, 2014).

In traditional classrooms, many students dare not point out their doubts in class due to reasons such as timidity or shyness. However, in a smart classroom, each student has his own terminal, and they can ask their own questions to the teacher through the terminal without raising his hand. The traditional classroom can only deal with the doubts that one thinks or most top students think. But in the smart classroom, the teacher can control the interface of the student terminal through the terminal, and then fully understand the learning status of each student in real time, and solve the problem in a targeted manner. The smart classroom is a new type of classroom covered with WiFi wireless local area network. In classroom teaching, one can even connect to the Internet through various handheld devices to obtain real-time resources and broaden students' thinking (Johnson, 2013).

PROBLEMS FACING SMART CLASSROOMS

TEACHING METHODS

A basic original intention of all smart classrooms is to address the actual needs of learner-centered personalized learning in the current curriculum and teaching reform in primary and secondary schools, under the environment of rich media technology. In many classrooms in China, what people actually see is that there are more terminals in the classroom, and everything including the teaching method has not changed. The "smart classroom" is still "teacher-centered", and teaching activities depend on It is "Telling" and "Being told" that do not pay attention to interaction with students. "Smart classroom" is still a "teacher-centered" classroom. The classroom in the Internet age is not only a place for learning behavior, it should also be a place for students to learn and socialize (Jewell et al. 2019).

TEACHER

Teachers have been trained by experts, but the training is mainly focused on the use of the system, and the teachers' information literacy and information teaching ability have not been fundamentally improved. In a true "smart classroom", the teacher should be the guide and recorder of students' learning behavior. "Teacher-student interaction" is an important way for students to fully grasp knowledge in the

classroom. "Interaction" requires teacher-student communication instead of mechanized step-by-step teaching (Hutt et al. 2017).

STUDENT

The inadequacy of student learning support services is a common "wisdom" problem. Like the previous hot "MO Classes", the mobile terminals such as tablet computers appearing in smart classrooms today only provide more possibilities for learning. We must realize that technology has never provided inevitability. In MOOC teaching practice, in flipped classroom teaching exploration, as in today's "smart classroom", learning support services for students are crucial (Maich, & Hall, 2016).

NECESSITY OF "ICT EDUCATION" NOW

There are two main purposes of ICT education. One is the realization of easy-to-understand lessons. In order to develop children's academic ability, it is important to realize lessons that are easier to understand. By effectively using ICT, onecan realize immersive learning that appeals to one's eyes and hearing. The other is support for so-called 21st century skills. Traditional education has focused on how much knowledge can be memorized. However, now that knowledge and information can be obtained on the Internet as much as possible, the "information utilization ability" and "creativity" that can proactively select and utilize what is needed from a

vast amount of knowledge and information. Training is urgent (Holthouse, 2013; Merç, 2015).

In addition, ICT is attracting attention as a tool to help with the demand for interactive lessons and active learning, rather than the traditional one-way lessons from teachers to students. In this way, ICT education is expected to be effective in improving the quality of education and realizing the new learning required by the times. The use of ICT, such as video, animation, audio, and websites, makes lessons much easier to understand. For example, one can effectively motivate learning by actually moving a graphic problem on a tablet to deepen a three-dimensional understanding, or by showing a complex historical background or synopsis in a video. Education with a multi-faceted approach attracts learners' interest and motivation to learn (Garner, & Bonds-Raacke, 2013).

EFFICIENCY OF LEARNING

There are many people who have the experience that the lesson is over just by copying the writing on the board into a notebook. By utilizing ICT, the contents of the blackboard can be shared with the student's terminal with a single touch. If one can shorten the transcription time, one can devote that time to activities that deepen one's thinking, expression, and creativity. The automatic rounding function found in e-learning and home-use teaching materials and the repetitive learning of difficult units also lead to more efficient learning (Holthouse, 2013).

STREAMLINING SCHOOL AFFAIRS

In recent years, the busyness of teachers in school affairs has become a problem. It is expected that by improving the efficiency of school affairs using ICT, such as the maintenance of computers for each teacher, the burden on teachers will be reduced and more time will be spent on more essential education (Nikian et al. 2013).

INDIVIDUAL LEARNING / COLLABORATIVE LEARNING

"Individually optimized learning," which is the opposite of conventional simultaneous lessons, is attracting attention. By using ICT, it is possible to easily provide questions according to each person's level of understanding and guidance and support for children who need special support. ICT is also effective in "collaborative learning," in which students deepen their thinking and work on problem solving on a group-by-group basis. One can use it conveniently, such as visually sharing each other's thoughts and smoothly organizing opinions on issues on the terminal (Garner, & Bonds-Raacke, 2013).

INFORMATION UTILIZATION ABILITY

With the rapid progress of computerization in society, the importance of "information utilization ability" that allows children to select and utilize necessary

information and information means is increasing. It can be said that the use of ICT in schools has great merits in order to have the ability to respond independently to the information society and from the perspective of acquiring ICT literacy (Ford et al. 2012).

ICT EDUCATION UTILIZATION CASES AND EFFECTS

According to an awareness survey report on the use of ICT in elementary, junior high and high schools conducted by the e-Learning Strategy Research Institute in 2015, 60% of teachers said that "the introduction of ICT has changed classes and students" ("No change". Was only 2%). The main changes are motivation for learning, increased concentration, and improved learning effect. Furthermore, there was an opinion that the efficiency of learning has made it possible to devote more time to "essential education". Here, we will introduce the data extracted from the survey report (Holthouse, 2013).

ICT EDUCATION UTILIZATION EXAMPLE

ICT education utilization enables the elementary school teachers to do proper introduction of research learning, teaching materials using PPT, and images using iPad. When all subjects are being taught through technology, visual explanations and exchanges seem to be effective. Use digital textbooks for introduction is another

effective way. In case of junior high school teacher, ICT education utilization can help in projecting students' desk activities with a projector connected to a tablet and provide feedback to all students in the class (Pilgrim et al. 2012). When explaining the work in the technical department, the social department continuously presents digital textbooks. To understand calculation problems in math classes, ICT can play a vital role. It is used in almost all situations in English instruction to acquire the four skills of reading, writing, listening, and speaking. In case of high school teacher, ICT education utilization is basically used in general lessons (PowerPoint is often used). Motivation at the introduction stage and summary stage is boosted and the lesson content is projected on a projector and explained in an easy-to-understand manner. Using digital textbooks for reading aloud simple words and texts and developing lessons with game characteristics as a group is another key point in this regard (Ford et al. 2012).

ADVANTAGES OF UTILIZING ICT IN CLASSROOM

Educational technology should be emphasized in the delivery of content by teachers. Pupils need to be taken out of the cocoon of 19th century learning features, among them, teachers are like computer servers (servers) that store thousands of information and pupils are like hard disks (hard disks) without memory waiting to be filled. The latest learning styles, as emphasized in the Primary School Standard Curriculum, recommend the use of various approaches such as hands-on, contextual learning, constructivism and mastery; through games and discovery inquiries; and

project -based. The approach used should provide unlimited opportunities to students and take into account the level of intelligence of students. This is in line with the 21st century learning style centered on digital age literacy. In addition to creating competent instructors, the main focus of educational technology is to produce effective teaching. Effective teaching enables students to acquire the skills, knowledge and attitudes expected. Carefully planned and complete instruction helps to create students' confidence, trust and respect for the instructor while helping to build a positive discipline.

The emergence of technology in the world of education is certainly the major change in education in recent years. This revolution is still in its infancy and the pros and cons of the emergence of technology in the classroom are widely debated. Here are the ones that are most often cited, their impact on children's education, and in the case of the downsides, how they can be easily bypassed. Before reviewing the pros and cons of technology in the classroom, it is helpful to see how it can be used in education. There are of course a thousand ways to use modern technology as a teaching tool. This ranges from simple internet access to the use of a dedicated educational tablet, including access to shared computers or online resources such as digital manuals or interactive exercises. However, this use of technology has many commonalities that can be classified as the advantages of its use in the classroom.

Here are benefits of using ICT and social media in an educational context:

1. Social media allow the exchange and sharing of information easily, which is an advantage for educational settings. Indeed, all the public participates and can

exchange and produce content, which can be very interesting. It is enough to be in contact with the people who publish information that interests them and to exchange information with these people. It's even possible on Facebook, for example, to create groups that can talk about a particular topic where everyone in the group can post information related to the topic. This allows an interesting exchange between users. Social media are a great opportunity in the field of education to talk about major issues by triggering debates, for example.

2. ICT in schools can really help students with disabilities or with adjustment or learning difficulties. Indeed, there are several software that can help their success since these students need methods to be able to learn like others and ICT is a very good solution for them. ICT allows the integration of some pupils, which would perhaps be impossible without them.

3. ICT is a good way for teachers to make their students better learn. With ICT, teachers can make PowerPoint presentations, for example, to make the material more visual for the pupils, to facilitate their comprehension and to have more their attention. In addition, some ICT can be very interesting for the learning of the pupils which can be an excellent didactic material for the teachers since the pupils can manipulate their notions of learning.

4. Better student participation: Online work tools make it possible to involve all students, even those who are the tiniest and who never dare to lift a finger to give an answer. The use, for example, of the individual tablet allows everyone to give an answer to the questions and to the exercises. In addition, technological tools, by their

playful and interactive capacity, promote better engagement and more focused attention which lead to much better participation than with traditional methods.

5. Endless resources: Thanks to technology and internet access, resources are becoming limitless. A class is no longer restricted to its only personal and physical library but can access all digital books. Likewise, a student is no longer limited to a single textbook in a given subject, but can work with an endless variety of textbooks and workbooks. In addition, this access to immense resources is instantaneous and at any time of the day. The student has constant access, via his tablet, to his textbooks and work tools.

6. More personalized learning: Modern technological teaching tools promote individualized learning more suited to the pace of each student. They have the possibility of repeating each exercise a large number of times, of coming back to a poorly understood notion and they are no longer a prisoner of the overall rhythm of the class. The fastest students may also find it of major interest, no longer being held back by students who encounter some difficulties. Finally, digital tools allow the teacher to design individualized exercises or tasks in a simpler and faster way, to adapt the pace of learning to each individual's faculties or by groups and levels.

7. Tasks that are automated: Managing a classroom often involves repetitive and uninteresting tasks for the teacher. Digital teaching tools that include classroom management tools save a significant amount of time in monitoring, statistical analysis and reporting for the teacher. As a result, he has more time to devote to creating exercises, preparing lessons, or developing other educational activities.

8. Valuable learning of useful skills in a technological world: Today's world is already dominated by technology and digital technology and tomorrow this will be amplified even further. It is therefore precious that children are prepared for the world they will find in adulthood and acquire, at an early age, methods to make adequate use of modern digital tools. The acquisition of these skills has even become vital today to have all the assets necessary for the professional world of tomorrow.

DISADVANTAGES OF UTILIZING ICT IN CLASSROOM

It is natural that every rapid change in teaching methods provokes debate. And some people point to supposed drawbacks to the advent of technology in education. Some are valid, but most can be avoided by making the right choice of methods and tools. Here are three disadvantages of using ICT and social media in an educational context:

1. Social media can be addictive and decrease focus on the tasks students have to do. Some people may spend evenings on social media instead of doing what they really wanted to do or instead of doing homework. Indeed, this means that students can reduce their concentration in their studies since they go on Facebook or Twitter by leaving their work for longer than he had planned at the beginning. It also becomes addictive when one goes to Facebook every five minutes for example just to see if one does not get a notification. Some people may abuse social media until their relationships, his daily activities and even his studies are disrupted. In the event that a

laptop computer is allowed in the classroom, students have access to social media and the teacher sometimes has little control over their use in the classroom.

2. Since the advent of social media, a new type of bullying has taken shape - cyberbullying. In addition to being bullied in the school environment, some young people still experience it when they arrive home on social media. Bullying is present in social media and this bullying means that there is less guilt on the part of the bully since he does not see the reaction of the person he is bullying and he does not surrender not realize that he is actually intimidating by social media. In addition, on social media, other people have more opportunity to encourage these actions, for example by clicking "like" on Facebook. This bullying is extremely difficult for the person experiencing it.

3. In terms of the use of computer and communication technologies in schools, there is often a lack of knowledge on the part of teachers and also the costs related to ICTs which are very high. These are major drawbacks to the use of ICT in school settings. The costs are high and not all schools can use it because of the costs. This can lead, in a way, to discrimination between schools with enough budgets to have access to ICT and those with less. Also, some teachers are not comfortable with information and communication technologies and may not use it or misuse it because of it.

4. Technology in the classroom can be a distraction. The notion of a screen is often associated with a distraction effect. It is true that children are quickly magnetized by images and all modern digital tools. But on the other hand, choosing a school tablet offers important possibilities for the teacher. This has a “master” tablet and it selects

the content viewed by the students and can turn off all the student tablets when it needs their attention. It can also instantly turn on the tablet on a specific page in a textbook or on a specific exercise, avoiding the inevitable waste of time when all the students are looking for the right page in a book in often considerable confusion. A digital system dedicated to education allows significant control and does not fall into the pitfall of distraction that would be inevitable with a passive system.

5. Technology can disconnect from social interactions. Digital tools are often seen as devices that can isolate and cut off classic interactions of life in society. In education, technology is a tool, not an end in itself. It is up to the teacher to create the conditions so that the work carried out is a source of social interaction: group work, oral presentations, etc. In addition, an educational tablet is only a work support and it should not do away with traditional activities.

6. Students do not have equal access to technological resources. It is a fact that all families do not have the same access to recent computer equipment and do not offer the same support for children in their first steps in the digital world. But it is precisely because of these inequalities that the school must set up dedicated tools available to each student. Technology in the classroom therefore makes it possible to partially erase the inevitable inequalities between families.

7. Online resources can be unreliable or even dangerous. It is true that for a child, the internet can present real dangers, but also erroneous or approximate information. The teacher's job is precisely to support him in his research, to give him methods to evaluate the content found and keys to better understand the pitfalls of the Internet.

In addition, school tablets are completely secure and guarantee ethics and the absence of user profiling.

PROCESS OF UTILIZING ICT IN CLASSROOM

The concept of modernizing education puts forward new social requirements for the school system. The main and secondary task is the need to improve the efficiency of the assimilation of educational material, aimed at improving the modern quality of education. And this is the orientation of education not only on the assimilation of a certain amount of knowledge by students, but also on the development of his personality, his cognitive and creative abilities. A general education school should form an integral system of universal knowledge, skills and abilities, as well as the experience of independent activity and personal responsibility of students, which determines the modern quality of educational content. Improving the quality of education should be carried out not at the expense of an additional load on students, but through the improvement of forms and methods of teaching, the selection of educational content, through the introduction of educational technologies focused not so much on the transfer of ready-made knowledge, but on the formation of a complex of personal qualities of students.

The younger student not only prepares for adult life, not only acquires knowledge, but participates in various activities. The use of modern pedagogical technologies makes it possible to solve educational problems and form a child's

readiness for independent knowledge of the world around him. Since the middle of the last century, the term "pedagogical technologies" has firmly entered the pedagogical lexicon. However, there are still disagreements in the understanding of the term "pedagogical technology" and in its use.

Pedagogical technology is considered both as the science of the most rational ways of teaching, and as a system of teaching principles, and as a technique for implementing the learning process. The term "pedagogical technology" is sometimes used as a synonym for the term "pedagogical system", and sometimes it is equated with methods. It was this circumstance that gave rise to the analysis of the existing interpretations of the term "pedagogical technologies" in order to more clearly define the essence of this concept.

Pedagogical technology is a description of the process of achieving the planned learning outcomes. Of course, it is impossible to teach a child everything, to give him ready-made ideas and knowledge about literally everything. But he can be taught to acquire knowledge on his own, analyze the situation, draw conclusions, find a solution to a problem or problem that he did not solve. Focusing efforts on improving the quality and efficiency of educational and educational work, it is necessary to ensure that each lesson contributes to the development of students' cognitive interests, activity and creativity, and therefore to improve the quality of teaching.

The urgency of this problem is of great importance at the present time for a number of reasons. According to the Concept for the Modernization of Education, society makes certain demands on the school. The main and paramount task is the

need to improve the quality of education, and this is possible through the improvement of forms and methods of teaching, through the introduction of educational technologies. But at present, in real school practice, the number of children who have difficulties in learning is increasing and require special attention. And all this negatively affects the further intellectual and personal development of the child. Thus, there are contradictions between:

- Frontal forms of education and individual methods of educational and cognitive activity of each student;

- Between the content of education and the increased number of children who are not ready for schooling;

MODERN PEDAGOGICAL TECHNOLOGIES

The concept of "technology", "educational technology", "educational technology"

Technology - from the Greek words techno (art, craft, science) and logos (concept, teaching). With the help of technology, intelligent information is translated into the language of practical solutions. Technology is both ways of acting and how a person participates in an activity. Modern technologies in education are seen as a means by which a new educational paradigm can be implemented. Trends in the development of educational technologies are directly related to the humanization of

education, contributing to self-actualization and self-realization of the individual. The term "educational technologies" is more capacious than "learning technologies", because it also implies an educational aspect associated with the formation and development of the personal qualities of students.

In its most general form, technology is a well-thought-out system of “how” and “how” the goal is embodied in “a specific type of product or its component part. Pedagogical technologies are complex systems of techniques and methods, united by priority general educational goals, conceptually interrelated tasks and content, forms and methods of organizing the educational process, where each position leaves an imprint on all others, which ultimately creates a certain set of conditions for student development.

APPLICATION OF MODERN PEDAGOGICAL TECHNOLOGIES IN THE CLASSROOM IN PRIMARY SCHOOL

PROBLEM-BASED LEARNING TECHNOLOGIES

How to make an ordinary lesson unusual, how to present uninteresting material interesting, how to speak with modern children modern language? We ask ourselves these and many other questions when we come to class today. The teacher must possess personality-oriented, developmental educational technologies that take into account different levels of readiness for learning at school. The development of the student's modern personality is carried out in the process of his own activity

aimed at "discovering" new knowledge. Among the variety of modern educational technologies, researchers have singled out those that can be used in work with primary school students. For example: personality-oriented, developmental, problem-based learning technologies, as well as game, project, health-preserving and information and communication technologies.

The relevance of this technology is determined by the development of a high level of motivation for learning activities, enhancing the cognitive interests of students, which becomes possible when resolving emerging contradictions, creating problem situations in the classroom. In overcoming feasible difficulties, students have a constant need to master new knowledge, new ways of acting, skills and abilities. The solution of educational problems has a positive effect on the emotional sphere of students, creates favorable conditions for the development of children's communication skills, the development of their individuality and creative thinking. In addition, the ability to see problems, ask questions, put forward hypotheses, define concepts, conduct observations and experiments, draw conclusions and conclusions, work with text, prove and defend their ideas leads to the achievement of educational results such as the ability to independent cognitive activity, the ability to be successful in a rapidly changing world, etc. Creating problem situations in the classroom is one of the ways to develop the creative thinking of younger students. Problem-based teaching methods can be applied in the classroom, creating a problem situation at any stage.

TECHNOLOGY OF THE ACTIVITY METHOD

This technology synthesizes non-conflicting ideas from the concepts of developmental education of leading teachers and psychologists from the standpoint of continuity with traditional school. With the effective use of the activity method, meta-subject results of education are formed, specified by the Federal State Educational Standard of the LEO (organizational-reflexive, cognitive, communicative, personal ECD), logical and variable thinking develops, high efficiency of participation of schoolchildren in competitions and competitions at different levels is ensured.

INFORMATION EDUCATIONAL TECHNOLOGIES

A lesson using information technology becomes more interesting for students, as a result, it becomes more effective assimilation of knowledge; the level of clarity in the lesson improves. Improving the effectiveness of the lesson through clarity. Of course, this can be achieved by other methods (posters, maps, tables, writing on a blackboard), but computer technology undeniably creates a much higher level of visibility. To obtain new information and broaden the horizons of students in the classroom and outside the classroom, teachers can use presentations, which can be composed with the help of material taken from Internet resources. Children watch slides with pleasure, take an active part in the discussion of what they saw. For lessons from the outside world, presentation is just a godsend. Pictures of the nature around us, animals, seas, oceans, natural areas, the water cycle, food chains -

everything can be reflected on the slides. And it is easier to check knowledge: tests, crosswords, puzzles, charades - everything makes the lesson fascinating, and therefore memorable.

DESIGN TECHNOLOGIES

Teachers also use the techniques of project activity, since this method stimulates the independence of students, their desire for self-expression, forms an active attitude to the surrounding world, empathy and involvement with it, develops communicative qualities. When completing each new project (conceived by the child, group, class, independently or with the participation of a teacher), teachers solve several interesting, useful and related to real life tasks. The child is required to be able to coordinate his efforts with the efforts of others. To be successful, he has to acquire the necessary knowledge and with its help to do specific work.

Project "How to Know the World". The goal of the project is to instill love for one's hometown, region, country, foster a sense of civic consciousness and patriotism, love and respect for the historical past, foster pride in one's homeland and love for it; make a kind of piggy bank photographs reflecting impressions of trips, excursions. The project is carried out collectively. Students, with the help of parents and teachers, work with various sources: encyclopedias, reference books, the Internet. The collected material is processed and a class hour is held, teachers speak at a parent meeting, share our experience at a regional seminar for primary school teachers The task of the

teacher is to find and organize interesting forms of the process of learning the world by students. How to build a training educational work so that each student is included in the work, to give him the opportunity to express himself, to realize his cognitive interest? The inclusion of schoolchildren in project activities teaches them to think, predict, anticipate, forms an adequate self-esteem, and, most importantly, there is an intensive development of children. And activity, in turn, forms thinking, skills, abilities, interpersonal relationships.

GAME TECHNOLOGY

Play is one of the wonderful phenomena of life, an activity that seems to be useless and at the same time necessary. The game turned out to be a very serious and difficult problem. In modern pedagogy, play, didactic play is used as an independent technology for mastering the concept of a topic and even a section of a subject, as well as an element of a more general technology. Play is the strongest means of socializing a child, it makes it possible to simulate different situations in life, to look for a way out. Play is important as a sphere of self-realization as a person; it is a communicative activity.

HEALTH-SAVING TECHNOLOGIES

Health-preserving technologies are used by me both in lesson activities and in extracurricular activities. The formation of a responsible attitude to one's health is a necessary condition for the success of a modern person. Health-saving approach can be traced at all stages of lesson, since it provides for a clear alternation of activities. Our task today is to teach a child various techniques and methods of preserving and strengthening his health.

SYSTEM OF INNOVATIVE ASSESSMENT "PORTFOLIO"

Currently, the educational technology "Portfolio" is becoming very popular. The use of the "Portfolio" technology allows to trace the individual progress of the student, helps him to realize his strengths and weaknesses, allows one to judge not only educational, but also creative and communicative achievements.

HISTORICAL DEVELOPMENT OF IT IN EDUCATION

Despite all the facts, the imperative and permanent need to use these beneficial and advantageous means for classroom activity, which also provides unavoidable training in the use of these technologies that will then be applied in the daily life of the classroom. Unfortunately, within the field of education, the use of these tools is fragmented. Not all institutions have the essential and necessary elements for the

corresponding or precise application for each situation. Not all teachers, although excellently trained in their fields and experts in teaching techniques, have received the appropriate training for the use and implementation of these technologies. Teachers cannot fail to mention the fact that these techniques are constantly changing and expanding, making certain tools obsolete, sometimes even before they have been fully used.

In cases of genuine inclusion, teachers are experts in the topics they teach, either as professionals and / or researchers, and they recognize that the practices they develop in non-teaching environments have been transformed in such a way by new technologies that they need to express such recognition in teaching proposal. In the beginning, when new technologies began to emerge and develop in the last years of the last century, the dominant idea of the time was that of teaching the techniques themselves, the development of procedures and learning how to use the techniques themselves. devices; what was colloquially called studying computers. This type of application of technology is what is known as effective.

In past, there was not then a positive and practical use within the classroom of these tools that served the purpose of enriching the dynamics of the class. The most interactive thing back then was a projector. On the one hand, the technology was not so developed, and on the other, the potential it could have within the field of education was not known. That is, there were situations in which the incorporation of new technologies occurred for reasons that were not (were) those of the teachers themselves concerned about improving their teaching practices. It was going to be

several more years until the active and practical incorporation of these elements finally began, which later became a state of permanent growth.

Years passed and the explosion that technology generated with its development completely changed our way of seeing and relating to the world and our personal life in such a way that our daily lives cannot be thought of today without it. The speed and scope of communication, automatic access to information, knowledge sharing, integration of sectors, all elements that teachers can now have access to thanks to these advances. Impossible then that the educational world was exempt from its reach, this explosion crossed and modified the field of education in such a positive way that

The integration of Information and Communication Technologies (ICT), Internet access and networking seem to have become a universally useful medicine for all the ills of education and almost all the dysfunctions of the new social order. However, teachers can never ignore the role of teachers since they are the protagonists of educational innovation. For example, in the university world, teachers can mention many factors to take into account that influence a lesser or greater incorporation of technology; the type of career chosen, how it is approached, the training by the different houses of study, public or private, the different types of technological application, effective or genuine, but above all it will be the imprint and access that the teacher has had technology throughout his career, as a teacher or as a professional, which ultimately determines the corresponding and practical use of technological elements. Technological phenomenon has begun and does not show

signs that it will stop in its advance soon or slow down, but on the contrary, increase the pace. Teachers must be prepared to keep up with him. The important thing is that the way has been found to be able to move towards the challenges that will be presented in the future for teachers and professionals of today and for students and professionals of tomorrow.

WAYS TO USE TECHNOLOGY MORE FUN IN THE CLASSROOM

Technology has a lot of common relationships with education. When it comes to education, self-improvement should come. It is not staying where people are. It means constantly improving oneself and sharing knowledge. Technology may come to our mind as consuming in the first place. Actually, this is the message to be given. Ads always tell this. With the logic of being happy, our homes and relationships are tried to be hurt. As a young society, we can realize this and ensure that technology is not our whole life, but it will take some skill. While studying, watching television, on the bus, on the minibus, crossing the street, talking to someone, we always travel with technology at hand. So why? People are dealing with more harm than good. For example, there are channels on YouTube that shoot videos with a lot of different content. Many new and beautiful channels were opened in the field of education. Perhaps it does not require most young people to attend a study center or basic high school. Who knows, in the future, with technology, study centers and basic high schools will disappear and the number of online lecturers will increase. At least

during the exam preparation period. Teacher, there are better expressions than basic high schools. Because people are very satisfied. Of course, private tutoring can be considered different, but at least as an alternative. As young people preparing for the technology exam, teachers can use this style in this period. Technology and education are intertwined.

SOCIAL MEDIA

The use of social media in education is discussed. However, it is not possible to exclude social media from education today. Students dive into social media after school. Well, why are the platforms involved in life so much? Education not to be used as a channel? For example, it can be turned into an online discussion space on certain topics. Students who research a topic raised in the course or are assigned a task can discuss with each other on social media. In this way, the sharing of resources can increase, students can help each other more, and more effective group work can be done.

SMART CLASSROOM DESIGN SOLUTIONS

The so-called smart classroom is a device that can conveniently control and operate audio, optical, and electrical equipment such as audio-visual, computer, projection, interactive whiteboard and other equipment in the classroom, which is beneficial to teachers and students to seamlessly access resources and engage in

teaching and learning activities. And can adapt to a variety of learning methods including distance learning, with natural human-computer interaction as the feature, relying on intelligent space technology to achieve an enhanced classroom. The intelligent classroom specifically embodies the characteristics of advanced equipment (complete), convenient control (free), abundant resources (sufficient), real-time interaction (smooth), and flexible (diversified) teaching methods.

1. BACKGROUND OF SMART CLASSROOM:

In schools, classroom teaching is the most important link for students to receive systematic education. Doing a good job of teaching interactive links is the key to mastering the quality of teaching links and improving the level of teaching. In the current teaching process, there are many problems in the traditional sign-in link, question confirmation link, question interactive link, and classroom quiz link. In the sign-in process, paper sign-in is inefficient and there is a sign-on phenomenon, and the results are not convenient for teachers to count; in the question-interactive link and the classroom quiz, the teacher gives a simple choice, and the student raises his hand or answers verbally, which cannot be accurate Teachers can only judge whether to conduct teaching based on the general situation. There is no accurate data, let alone the later data mining and data statistics work.

2. THE PURPOSE OF THE SMART CLASSROOM:

Smart classroom equipment can embody the three levels of the Internet of Things (application layer, network layer, and perception layer), using sensors, radio frequency identification (RFID) and other technologies to enable information sensing equipment to perceive any required information in real time, according to the agreed protocol, Through possible network access methods (such as WIFI-based wireless local area network, mobile communication, telecommunication network, etc.), any item is connected to the Internet for information exchange and communication, so as to realize the ubiquitous link between things and things, and things and people.

3. THE CONSTRUCTION OF SMART CLASSROOMS:

Wi-Fi wireless LAN can be constructed with light-carrying wireless switches to cover the smart classrooms in the construction of smart classrooms, plus the wired network switches and network routers of the classrooms, so as to establish a key part of the Internet of Things that integrates wired networks and wireless LANs-the network layer and various sensors. The software accesses the IoT engineering information platform wirelessly through the standard module WiFi device server (serial communication RS232 to WiFi wireless network), forming a unified IoT engineering experiment platform that comprehensively covers the three levels of the IoT. At the same time, other handheld devices (laptops, mobile phones, etc.) with built-in WiFi modules can also wirelessly access the experimental platform and

become part of the experimental equipment for the Internet of Things; other perception modules developed by teachers and students in teaching and scientific research practice have passed the standards The WiFi device server connection can also easily access the experimental platform to complete the test and verification.

Smart classrooms are based on the Internet of Things technology, which can be built into an Internet of Things application scenario, which can be used for students to carry out innovative experimental research, and it is also convenient for teachers to carry out scientific research. The staff attendance system in the smart classroom can be used to judge whether there are people in the classroom. If there is no one in the classroom, all systems in the classroom are closed; otherwise, they are in working condition.

THE SKILLS AND CHARACTERISTICS OF MIXED CLASSROOM TEACHING

After entering the new semester, some parts of the world have implemented new restrictions in response to the epidemic. Therefore, the blended learning environment has become a key part of ensuring the continuity of education. School leadership teams around the world have also expanded existing plans to continue to support hybrid classroom environments after the epidemic. If students cannot go to school due to bad weather, poor air quality, illness, travel, or other problems, they can use a hybrid classroom setting to continue learning anywhere in a virtual way.

However, the experience of mixed environment teaching and face-to-face teaching is very different. One technique summarized by educators is to allow all students (including students in physical classrooms) to join the Zoom classroom through personal devices. Once all students have entered Zoom, one can use the following digital tools and features to create an engaging experience for everyone.

There are many service providers for the construction of smart classrooms on the market. The smart classroom systems they provide are different and have their own characteristics. Take our Smart Classroom system as an example. This system mainly has the following features:

1. Simultaneous online and offline learning, breaking the boundaries of time and space. The system has offline teaching, online interactive teaching, dual-teacher classrooms, and recording classrooms. And all kinds of teaching equipment, break the limitations of time and space, truly achieve diversified teaching methods and the sharing of various teaching resources, and realize the interconnection of networks, regions, and resources.

2. Interoperability, live recording and broadcasting, the smart classroom solution of Technology, centered on student development, and "unbounded teaching space" of "interconnection, resource sharing, live recording and broadcasting" as the core concept, breaking the educational administration, academic work, Information islands such as all-in-one cards and smart classrooms integrate teaching resources, teaching services, and teaching data to provide teachers and students with shared, interactive,

and diversified content display methods and interactive methods to create a smart teaching ecological environment.

3. The three-dimensional integrated smart classroom system provides universities with integrated functions such as smart teaching, online teaching, smart management and control, data matrix, etc., and builds a “unbounded” three-dimensional integration of smart teaching environment, smart teaching mode, and smart teaching evaluation Teaching ecology.

4. Teacher-student interaction. Zero distance teacher-student teaching interaction, from pre-class preparation, preview, sign-in, to in-class interaction, feedback, recording, to after-class classroom analysis, statistics, review, etc., diversified smart classroom interaction, regardless of Whether it is online or offline, it allows teachers and students to communicate with each other at zero distance.

5. In front of the stage and behind the scenes, sharing data. Collect classroom data of teachers and students through AI (in front of the stage), as well as the teaching data and personal information of the original related business systems (behind the scenes). All kinds of data are interconnected, open and shared to help Multi-dimensional realization of student evaluation, teacher evaluation and teaching quality evaluation.

Smart Classroom is a multimedia classroom interactive platform based on the multimedia classroom solution. It uses modern multimedia technology to transform the traditional chalk + blackboard + textbook into an intelligent teaching terminal + low-light quantum environmental protection board + short-focus interactive projector

+ The interactive teaching model based on student electronic schoolbags uses high-tech information methods to integrate network platforms, massive resources, and high-tech teaching equipment. Smart Classroom transforms the traditional one-way teaching class into an advanced two-way interactive class. In teaching, appropriate use of text, images, sound, animation and other media can vividly demonstrate the formation and application of knowledge, stimulate students' senses, and allow students to truly "participate" in the classroom, which will be passive to knowledge. Acceptance is transformed into active discussion and sharing of knowledge; let students discover the joy of learning in the exploratory self-study and interactive teaching classroom, so as to achieve the purpose of improving the learning effect, making a single classroom diversified and intelligent, and achieving "efficient, Practical, multi-dimensional" teaching.

SYSTEM COMPONENTS:

The whole system covers intelligent teaching terminal, teacher assistant, teacher-student interaction, low-light quantum board environmental protection teaching system, multi-function multi-function splicing table, short-focus interactive projector, etc.

PROGRAM FEATURES:

Low-carbon environmental protection, dust-free teaching: subverted and eliminated traditional blackboards and green boards, changed the history of writing with chalk in the past decades, chalk dust induced various diseases and shortened the service life of equipment, and the low-light quantum environmental protection teaching system One board with three functions (instead of blackboard, curtain, electronic whiteboard) is written by a water-based pen, wiped with clean water, dust-free, non-toxic, and odorless, ensuring the physical and mental health of teachers and students and prolonging the service life of the equipment, allowing the classroom to enter a low-carbon and environmentally friendly teaching surroundings.

Smart classroom is a typical materialization of a smart learning environment. It is a model form of multimedia and network classrooms. It is a new type of classroom built with the help of Internet of Things technology, cloud computing technology and intelligent technology. Walking into a smart classroom is like entering a magical world: remote interaction, smart Internet of Things, interactive discussion, smart teaching, recording and broadcasting; professional technologies such as nano blackboard and full-automatic full HD shooting, making everyone feel that the smart classroom has subverted Traditional teaching.

1. Low-carbon, environmentally friendly, dust-free teaching: Subverting and eliminating traditional blackboards and green boards, changing the history of writing with chalk in the past decades, chalk dust induces various diseases and shortens the service life of equipment, and protects the physical and mental health of teachers and

students. Extend the service life of the equipment and let the classroom enter a new teaching environment with low carbon and environmental protection.

2. Dynamic and open classroom: classrooms are no longer divided into front and rear, left and right, courses are no longer bound by tradition, and there is no fixed center in the "smart classroom". "Anyone can be the focus in the process of participating in teaching, and everyone is an active "neuron". Learning is not just as simple as receiving information, but also thinking, discussing, and participating. Provide speakers with a more intuitive visual platform, Let the classroom be in the strategizing of the speaker.

3. Teacher assistant: The intelligent teaching terminal integrates multiple teaching equipment's, turning mobile phones or mobile terminals into good teaching assistants for teachers. Teachers can step down the three-foot podium to interact with students, increase the interest of the classroom, and bring every student with oneself. Enter the learning atmosphere, and manage and control multimedia equipment at the same time.

4. Group teaching as one wants: The professional ergonomic design of interactive classroom learning tables and chairs meets the three modes of teacher teaching, group activities, and individual learning. It can quickly and easily change the classroom layout, and can enhance students' comfort and deepen Connect with each other and increase their participation in the classroom. In addition, it can be combined at will, and the functional areas can be divided by color to facilitate the construction of the classroom; it can also be folded and stored, orderly, convenient and easy to manage.

THE NEW INFORMATION AND COMMUNICATION TECHNOLOGIES: LEARNING VIRTUAL OR FACE-TO-FACE

In the previous aspect, it was treated as essential that ICTs constitute a need for their knowledge as a way to achieve accelerated development in the different spheres where they are involved, it is convenient to know how they should learn to master these technologies. Making use of one or the other concept as a way to learn ICT at this time is a great challenge, since both forms of learning at this time do not constitute options, if not a complement, since everything will depend on the level that has been reached regarding the development of the computerization of society in Cuba; since it is in a phase of take-off regarding this fact and in the health sector it continues along these paths.

FACE-TO-FACE LEARNING

This is the most used way of teaching computational aspects at first, since they were included in university study plans, where this development of these technologies began and today this form of learning is still maintained with some variants and the author This work makes use of them, but not as if it were a traditional class, where traditional didactic methods and procedures are applied; If not with somewhat novel elements offered by the technologies themselves, they call them guiding or invariant elements, given that they are present in the different Windows applications and

therefore they should not be treated again if they were studied and explained properly. ,

Given that the most generalized pedagogical form on ICT learning, it is constituted by face-to-face classes, it should be debated that given the characteristics that promote this type of learning, at no time should they be maintained as if this discipline were similar to another of the study plan or what is the same to give it the same treatment, as if it were a practical class in Chemistry or Physics, because it cannot be considered as such for different reasons of the development that these technologies acquire day by day, which In a good sense and keeping their distance, technologies have a body, since they walk by themselves, constituting a tool, practically irreplaceable for their daily work, carried out by man.

The quotation raised shows how technology can act as an agent of significant change, even radical, since it is necessary to look for methods that allow teaching this technology in a different way from how it has been done. The researcher is of the criterion that corresponds to pedagogues somewhat versed in the matter, to carry out research on how to learn and teach information and communication technologies applied to education with the aim of creating methodology in accordance with these changes that are taking place. constantly.

VIRTUAL LEARNING

It is no secret to anyone that the last 3 centuries have been characterized, each of them by the birth and development of a technology. In the 18th century due to mechanical systems, which accompanied the Industrial Revolution, in the 19th century due to steam engines and in the 20th the key technology has undoubtedly been the obtaining, processing and distribution of information. When tackling these new challenges, some questions should be kept in mind, such as:

· How to teach ICT?

· Could a common classroom be the appropriate space?

· A laboratory with state-of-the-art technological means?

· Are Medical Education teachers prepared for it?

· What scientific-technical preparation has the teacher had in ICT?

Bearing in mind the questions formulated, it is known in advance that it is necessary to have certain conditions and requirements that allow an answer to each of these questions, but that, in a general sense and visualizing the present, and the future, it is considered that teaching and learning Virtual is a guarantee in terms of a series of advantages that it brings, also of the most important where the knowledge that is sought is reached faster and by itself.

Virtual teaching raises a series of advantages of which the following can be mentioned, among others:

· Variety of methods.

· They facilitate the treatment, presentation and understanding of certain types of information.

· They facilitate the student to become the protagonist of their own learning.

· They optimize individual work, allow to attend to diversity.

· They motivate and facilitate collaborative work.

· They open the class to worlds and situations beyond the reach of the student.

As can be seen, these advantages greatly facilitate the learning of ICTs in a virtual way, in addition in this case, an attempt is being made to develop this type of teaching-learning, especially in the courses developed by CENAPET, and which enables other advantages such as are:

· The course can be developed by highly qualified people.

· Avoid the mobility of people (teacher or trainees) to the place of the course.

· Save resources of all kinds (lodging, food, transportation, etc.).

· You do not need to leave your job for the duration of the course.

· The learning process becomes more motivating and interesting.

· Do not temporarily abandon your family.

· They make it possible for a greater number of people to enroll it.

Now not all are advantages, there are also some disadvantages, such as:

· Technical problems that are sometimes confronted with technology.

· Not all centers have the technological requirements necessary for the development of these courses.

· Little or no sensitivity of some managers to solve problems in this direction.

· Little knowledge of the use of virtual learning as a way to train human resources in health.

What guarantees a virtual learning?

It allows among other possibilities:

Establish human relationships with other colleagues.

Connect with other latitudes to exchange ideas, criteria, among others, through the so-called chat (conversation).

Acquire new knowledge through collaborative ways.

Access virtual libraries in search of knowledge.

Develop courses through this variant of distance education.

For this, it is necessary to have an infrastructure that covers this development of ICTs so that adequate learning can be achieved through the so-called "virtual courses". Given that advances in science and technology demand new ways of teaching, learning and managing education. This implies training individuals with a flexible mindset and adaptable to a world in constant change. Another aspect to take

into account for the development of virtual teaching, as a variant of the so-called "Distance Education" is who are in charge of carrying out these courses; Well, a whole preparation of these personnel who will perform in the task must be carried out, since as has been said, here the methods of a traditional class are changed and therefore these new agents of the cyber virtual space must be impregnated with a solid base theoretical and practical on the matter in question.

It is also of utmost importance, the acquisition of skills in this type of learning to make use at all times of the benefits provided by ICT. Together with this and due to the experience acquired in the virtual course Impacts of ICT in the teaching-educational process, it is necessary to establish an adequate organization of all the information, both that which will be received from the teacher and the rest of the students, as well as the It will be prepared by the student himself for sending to the teacher. Chatting or conversation through the NICT is another of the possibilities offered by these technologies and that constitute an extraordinary experience to be able to communicate with people who are, even in another part of the globe, this being an advantage that is not face-to-face possible to get a discussion and get insight right away.

An aspect that should not be neglected at any time in the use of these technologies is that it, well conducted through teaching-learning, can form values, both in a positive and negative sense, in this case, form human values that form a man. for life, with qualities such as forming a new man, who is responsible, honest, simple, patriotic, among many more.

It can be summarized what has been raised, with the following quote "technology produces very different opportunities that can cause an avalanche of previously unsuspected searches. Teachers must embrace these opportunities and realize the implications this has for student learning instead of having a classroom full of students locked in a series of activities, a technology learning environment allows for an explosion of searches. Today in the world there are innumerable articles that are published on aspects that deal with the issue of ICT in educational matters, among them some titles such as those listed below can be mentioned:

- Use of the Internet in university education. Analysis of an experience in teacher training.
- Information and communication technologies (ICT) applied to education: some lines of research.
- Information and communication technologies as facilitators of self-learning and permanent training processes.
- Educational use of computer networks.
- Factors that affect pedagogical innovation with computing.
- Power of the computerized image in teaching.
- New technologies and their impact on the education of the future.
- New technologies in school: new pedagogical challenges and new teacher responsibility.

MAIN EFFECTS OF ICT EDUCATION

As observed by elementary school teachers, Main effects of ICT education include the degree of concentration in class has increased, the face often rises, children who had never been motivated until now began to tackle problems simply by using digital textbooks. Also, students themselves are actively trying to raise their hands and touch the board, and are trying hard to answer questions and children's understanding deepened by using software that incorporates movements in the explanation of math examples. Further, it is more efficient and focused to study by stimulating other senses such as video and research work than in a lesson without intonation only in textbooks. The students' sensibilities are greatly enhanced because they can realistically convey the movements and sounds that are difficult to convey in textbooks and prints, and the world that matches the actual theme through images (Evans et al. 2013).

As per observation of junior high school teacher, main effects of ICT education include the results of the class questionnaire have improved overall. Moreover, understanding has increased due to the enlarged posting of videos and images and teaching materials can be prepared in a short time and there is no time loss. Also, the degree of concentration is different. In addition, the fact that there is no loss of time means that the students will not lose their concentration and play due to the blank time. There were many students who could not understand moving things on the board, but the number of students who said "easy to understand" and "understood" increased (Ditzler et al. 2016; Pyle, & Esslinger, 2014).

According to high school teacher, ICT education helped in increasing the average score in the test. The teacher came to concentrate and had more time to observe the students. The training proceeded smoothly compared to when not in use. Similar results have been reported in various research studies by the Ministry of Education, Culture, Sports, Science and Technology, and it is recognized that ICT education is highly effective in terms of test results and understanding retention, positivity and motivation for learning, and a sense of accomplishment in learning (Davison, & Lazaros, 2015).

CURRENT STATUS AND ISSUES OF ICT EDUCATION

In addition to budgetary issues, the delay in ICT education is thought to be largely related to the attitudes of individual schools, boards of education, and government. And ICT education cannot be achieved simply by incorporating digital devices into classes. It is indispensable to review the lesson design on the premise of utilizing ICT, and to give appropriate guidance and follow-up to children and students. Therefore, what is important is the ICT utilization leadership of teachers. The ability of teachers to utilize ICT in a nutshell is "the ability to utilize ICT for studying teaching materials and preparing for instruction," "the ability to utilize ICT for school affairs," "the ability to teach information morals," and "classes." There are a wide variety of things, such as "ability to teach using ICT" and "ability to teach children and students using ICT". Depending on the age, we can hear voices from the educational field

saying, "I don't know when to use ICT in class." What is important is not how to introduce ICT education, but how to use it. In order to succeed in ICT education, it can be said that the total environment improvement including the enhancement of training for teachers is an issue (Xu, 2016).

WHAT IS NEEDED IN THE FUTURE FOR ICT EDUCATION

Recently, an increasing number of private companies have CIOs (chief information officers) who are in charge of computerization. Positioning ICT as an important strategy, we will systematically and systematically promote the introduction and utilization of ICT, and further improve information and communication technology and take security measures. The Ministry of Education, Culture, Sports, Science and Technology is proposing to set up this CIO in schools and boards of education, and to actively utilize "ICT support staff" as human resources to support teachers' lessons. Utilization of external human resources is effective because ICT is rapidly advancing and requires specialized knowledge and know-how. In the future, the perspective of appointing external human resources and obtaining support and cooperation regarding ICT education will become increasingly important (Wood, 2020).

CONCLUSION

With the active use of ICT in primary school, the general goals of education are more successfully achieved, competencies in the field of communication are more easily formed: the ability to collect facts, compare them, organize, express thoughts on paper and orally, reason logically, listen and understand oral and written speech, to discover something new, make choices and make decisions, interest in the subjects being studied increases. The right is the truth, not the more expensive teaching hardware investment, we will be able to create a better wisdom teaching place, a real role "smart classroom" is to make it easier for teachers to teach, to enable students to learn more effectively, this This is the purpose of education informatization and education reform.

The development of the 21st century is marked by the use of information and communication technology, including in education. Teachers and students are required to use technological developments in their learning process. With the presence of technology and communication (ICT) providing challenges in the world of education, students are more interested in learning ICT than other learning materials, students are even willing to spend hours in front of the computer to access the internet and look for information that cannot be obtained at school. This kind of phenomenon is a big task and homework for the world of education to be able to adopt and make learning innovations. Do not let the world of formal education be used only as a place to obtain a diploma without contributing to fostering the next generation of the nation's struggle to become future leaders.

The demands in responding to the globalization of education have appeared in front of the eyes, various computer devices and their connections in delivering learning participants quickly and accurately if used properly and appropriately, for this we need human resources who are responsive to ICT developments, ICT-based learning has many advantages. One of the advantages is that the use of time is used more effectively, subject material becomes more accessible, attractive, and inexpensive in cost.

Technology in the classroom brings many more advantages than disadvantages and when these exist, they are easily correctable or circumvented. Digital teaching techniques must indeed be supported in order to identify the difficulties and they must include security and functionalities which guarantee to all a functioning consistent with the objectives of the class. Technology remains at the service of teaching and pedagogy and not the other way around: the teacher remains the master of the game and it is he who directs his class and gives it its dynamic. They must be able to take advantage of digital tools to share knowledge and methods more effectively, and more easily arouse the interest of all students. Conclusion: with the active use of ICT in primary school, the general goals of education are more successfully achieved, competencies in the field of communication are more easily formed: the ability to collect facts, compare them, organize, express thoughts on paper and orally, reason logically, listen and understand oral and written speech, discover something new, make choices and make decisions, interest in the subjects being studied increases.

Pedagogical technology is such a structure of the teacher's activity, in which all the actions included in it are presented in a certain sequence and integrity, and implementation presupposes the achievement of the required result and has a predictable nature. The advantages of these technologies lie not only in strengthening the role and proportion of independent work of students, but also in the focus technologies for the development of the creative potential of the individual, individualization and differentiation of the educational process, promoting effective self-control and self-assessment of learning outcomes.

The priority of teaching should not be the mastering by students of a certain amount of knowledge, skills and abilities, but the ability of schoolchildren to study independently, to acquire knowledge and be able to process it, select what is needed, remember it firmly, and connect with others. The widespread introduction of innovative technologies creates conditions for improving the quality of education, cognitive activity and educational motivation of schoolchildren. The result of using modern educational technologies:

- Stable quality of knowledge in the subjects (65-75%) 100% level of student learning in the class.

- The results of diagnostics of the motivational sphere of students show the predominance of educational and cognitive motives over narrow-minded ones.

Thus, it can be concluded that these technologies allow to plan work that is aimed at achieving the goal of modern primary education - the development of the

child's personality, the identification of his creative abilities, the preservation of physical and mental health and to achieve good results. Concentrating efforts on improving the quality and efficiency of educational and educational work by means of innovative technologies, teachers can achieve high results in subject Olympiads, creative intellectual competitions, which contributes to the development of cognitive interests, activity and creativity of students.

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