Effective Use of Teaching and Learning Resources

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In view of the fact that students are surrounded by visual representations and audiovisual and auditory materials on a daily basis, owing in particular to media such as television and the internet, it is difficult to imagine today’s educational process without the use of various teaching and learning resources. The purpose and role of teaching and learning resources don’t only consist of making the educational process more attractive and interesting, but also of encouraging active learning, the development of different skills and the adoption of desirable values and attitudes of students. In order to achieve the aforementioned goals, it is extremely important to clearly define the conditions and methods of utilising teaching and learning resources in the teaching and learning process. The aim of this study was to, first and foremost, define and determine the basic stages of utilising teaching and learning resources, assuming that the aforementioned affected and stipulated the achievement of their purposes, roles and tasks in the teaching and learning process.

Key words: teaching and learning resources; characteristics of teaching and learning resources; utilisation of teaching and learning resources; internet in teaching

Introduction

The increasing influence of different media, especially television, the internet and internet communication, as well as the intense development of science and technology, is reflected on society as a whole, this includes education. This is one of the reasons why students today, as opposed to those of twenty or even ten years ago, have different interests, priorities and views on education and the educational process. They want education that is fun, dynamic and different, such as the digital images on television or web sites.¹

Before the rapid development of technology, the teaching process was reduced to the teacher’s verbal presentation of material and using chalk to write on the blackboard. Although speech remains the most important asset in the teacher’s work, today’s teaching process is difficult to imagine without the use of different modern teaching and learning resources. Their contribution to the teaching process is manifold, and

their use makes the process more attractive, interesting and modern, and, most importantly, it aids the teacher in the organisation and quality of conducting the said process, whilst aiding the students in the processes of enhancing their intellectual and emotional capacities.

In the context of classes as an institutionalised form of teaching and learning, teaching and learning resources could be defined as the instruments of presentation and transmission of the prescribed educational material. These include, amongst others: images, maps, photographs, sketches, diagrams, films, written material such as newspaper clippings or articles from scientific and technical literature. The importance of teaching and learning resources is further evidenced by today’s textbooks that abound with dynamic and attractive visual material which is used to present between 40% and 50% of their content, so that it could be closer to children and the media they are accustomed to, such as television, computer games and the internet. The wide usage of different teaching and learning resources has its positive and negative sides, and, in order to regulate the latter, it is important to realise how these resources are utilised in the educational process.

**Teaching and Learning Resources**

The purpose of utilising teaching and learning resources in class is to assist the teacher with the presentation and transmission of educational content and the achievement of educational objectives, whilst aiding the students in acquiring knowledge and profiling different abilities and values. Therefore, we can list the following examples of their common goals:

1. Student motivation,
2. Developing creativity,
3. Evoking prior knowledge,
4. Encouraging the process of understanding, decoding, organising and synthesising the educational content, logical thinking and reasoning, communication and interaction, and

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5. Contributing to the development of different skills and the acquisition of values of students, as well as the retention of desirable knowledge, skills and attitudes.

Whether or not these teaching and learning resources will achieve their purpose, role and numerous duties, it all depends, first and foremost, on their correct use within the educational process, which is why it is so important to define the basic principles of the aforementioned process.

Diagram 1. Overview of Types, Roles, Purposes, Tasks and Usages of Teaching and Learning Resources.
Teaching and learning resources can be differentiated according to their different characteristics that are apparent at first glance, their different communication systems or using the senses utilised by students in the process of receiving the information as a typology criterion. In the field of didactic theory, as well as in teaching practice, the classification of teaching and learning resources into visual, auditory and audio-visual resources is almost universally accepted.

As shown in the diagram, regardless of the type of teaching and learning resource and bearing in mind the process of teaching and learning, we can differentiate between three main phases of its usage.

1. The first phase could be termed as the phase of selection and initial evaluation. Its role is the selection of the most adequate teaching and learning resource. Several key factors should be taken into account here, such as:

   a) Teaching objectives and tasks. They are the foundation of the teaching process and serve as a starting point in the selection of teaching and learning resources.

   b) The student's personality. In the teaching process in general, and the selection of teaching and learning resources in particular, we must always bear in mind that every student is special and is defined by different physical and psychological qualities, intellectual development, social skills, interests, abilities and different styles of learning.

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c) The teacher's level of education and abilities.\(^8\) If the teacher, as someone who should lead, direct and monitor the teaching process, has no required knowledge and skills in order to realise the potential of teaching and learning resources, their role in the class becomes insignificant.

d) Characteristics of teaching and learning resources.\(^9\) Resources used in teaching should primarily be stimulating and informative, easily accessible and should contribute to the clarity and quality of teaching and learning.

e) The school's level of material-technical equipment. In case the school has no varied and adequate teaching aids, the presentation of teaching and learning resources will be largely limited.

2. The second phase in the use of teaching and learning resources is **presentation and interpretation**. This phase should be directed or managed in such a way that it encourages the teacher-student and student-student processes of communication and interaction in three basic steps, namely:

a) The initial analysis of the selected teaching and learning resource. This phase is based on determining the reasons for the use of said teaching and learning resource in the teaching process, and determining the resource's type, its name and the name of its author, and its source.

b) Collection and classification of the information presented/included/offered by the teaching and learning resource relevant to the purposes and tasks of teaching.

c) Synthesising the gathered information and drawing conclusions.

3. The third phase in the use of teaching and learning resources is represented by **final evaluation**. Its purpose is the evaluation of the results of selection and presentation, in other words, the effectiveness of the teaching and learning resource, in order to gain insight as to the contribution of said resource in achieving the set goals and in order to eliminate any deficiencies of selection and presentation.

As emphasized previously, each of the phases shown here is necessary in the use of teaching and learning resources in order to achieve their roles, potential and accomplish their desirable tasks in the process of teaching and learning, such as motivation, evoking pre-gained knowledge, encouraging communication, interaction and so on.

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\(^9\) Ibidem.
Characteristics of Teaching and Learning Resources

Even outside the context of teaching, teaching and learning resources have their own value and a different impact on individuals. For example, viewing a photograph or painting can evoke different memories and emotions or encourage creativity in an individual. If the aforementioned is applied to the teaching process, we might deduce that the goal of using teaching and learning resources should be directing the reaction, primarily caused by these resources, towards the achievement of the set goals and objectives of teaching.

Amongst the listed groups of teaching and learning resources, visual teaching and learning resources often receive precedence in the teaching process. The reasons behind this are their advantages that especially come into play during their practical use in teaching, specifically:
1. Availability in textbooks,
2. Multiplicity,
3. The fact that, in most cases, they present the essence of a subject matter related to the curriculum, and
4. Ease of application.

In addition to this, it has been empirically proven that visual information is retained in memory for much longer than the information transmitted via the oral-writing route, and that students tend to visualise regardless of their learning style. The visual teaching and learning resources used in the teaching process are numerous, thus it is necessary to differentiate between and classify them.

![Diagram 2. Classification of Visual Teaching and Learning Resources.](image)

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As shown in the diagram, “visual teaching and learning resources” could be divided into pictorial and written resources. Pictorial teaching and learning resources include various pictorial and graphic representations that can be effectively used in teaching, such as paintings, caricatures, graphic novels, photographs, maps, drawings, timelines, schematics, tables, charts and diagrams. Taking into account the well-known saying that a picture is worth a thousand words and the fact that students are more motivated and stimulated if their curriculum is presented graphically, it is not surprising that pictorial resources are considered very important in the process of teaching and learning, the fact made most evident in textbooks. The power of images was recognised as early as the Middle Ages when there came into existence the so-called “Biblia pauperum” (Pauper's Bible), which used pictorial representations with very little or even no text at all to teach, in other words provide information and the Gospel message to people who did not know how to read. As already pointed out, today’s discussion of the usage of images in teaching most often involves the Czech pedagogue Johann Amos Comenius (Komenský) who, in the 17th century, was the first to draw attention, in practical terms, to the possibility of arising interest and motivation in students and facilitating the learning process with the aid of pictorial representations. Later empirical studies further demonstrated that the information communicated visually is remembered a lot faster and retained in the memory longer than that presented in word or text.

The second group of visual teaching and learning resources, as shown in the diagram, consists of “written teaching and learning resources”. These resources are also numerous and can include all kinds of written records, from scientific and technical texts to poetry and prose. Specifically, written teaching and learning resources includes textbooks, manuals, curricula, documents, legal regulations, legal acts, directives, parts of printed media (dailies, weeklies and monthlies), parts of scientific works, fiction (novels and short stories), and poetry.

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12 In the German scientific literature what we define as the pictorial teaching resources is called “rein optisch – visuelle Unterrichtsmittel”. BAUSTEIN, V.: Medien des Geschichtsunterricht. In: Geschichtsunterricht. Ein Handbuch zur Unterrichtplanung. Stuttgart: UTB, 2004, p. 239.


15 Ibidem.

16 In the German scientific literature what we define as the written teaching resources is called “verbal-optische Unterrichtsmittel”. Ibidem, p. 229.
The aforementioned group of visual teaching and learning resources can be classified bearing in mind the resource’s importance for each class and, in this context, we can differentiate between “primary and secondary” written teaching and learning resources. Primary written teaching and learning resources should primarily include textbooks, manuals and curricula since they represent the basis of designing, structuring and managing the teaching process. The inclusion of other written teaching and learning resources into primary resources depends, first and foremost, on the goals and objectives of each class. For example: when teaching history, historical documents, legal regulations, charters and legal acts could be considered primary written teaching and learning resources, whereas poems, stories, diaries and newspapers could constitute secondary resources. In contrast, when teaching a mother tongue, poetry and prose would be the primary sources, whereas documents, charters and legal acts would constitute secondary resources.

The second group of teaching and learning is comprised of “auditory teaching and learning resources”, which, unlike the visual resources, are not numerous. Given the general positive effects of music on human frame of mind and reasoning, as well as its power to indicate different worldviews, political and social problems, it is clear to see why auditory resources are most often defined as especially stimulating and motivating learning and teaching resources. Those auditory teaching and learning resources which can be used effectively in teaching include audio recordings such as political and other speeches, testimonies, various types of musical compositions, radio shows, vernacular and so on.

“Audio-visual resources” constitute the third group of teaching and learning resources. Due to the fact these resources are a combination of sound, image and text, they contribute to a dynamic and lively way of introducing various representations of events, people and atmospheres into teaching. Audio-visual teaching and learning resources most often include films and educational television shows. Educational television

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shows are those television shows whose purpose is to deal with and represent the type of content that is connected to the legally prescribed curriculum. Seeing as this type of television show is unfortunately quite rare, especially when it comes to secondary schools, it would be pointless to further discuss their roles and possibilities of their use in teaching. On the other hand, owing to the hyper production of the film industry, there are numerous commercial and documentary films covering various topics that can be effectively used in teaching. Film is a powerful medium and, as such, it can influence thoughts, emotions and values, especially in young people, and this is why today an increasing amount of literature addresses the use of film as a teaching and learning resource.21

Despite their positive characteristics, audio-visual and auditory teaching and learning resources, as opposed to pictorial resources, are not well-represented in the teaching and learning process. The reason behind this is the fact that their use is conditioned by several key factors:

1. The teacher’s quality and systematic preparations based on their knowledge of how to choose their resources, the potential positive or negative effects and different ways to use auditory and audio-visual teaching and learning resources.
2. Enough time available for the implementation and content analysis of auditory and audio-visual teaching and learning resources. It should be noted that the extensive prescribed curriculum that should be realised within a single class does not leave enough time to employ auditory and audio-visual teaching and learning resources fully and effectively.
3. The school’s being well-supplied with adequate space and teaching aids.

Methods of Employing Teaching and Learning Resources in the Teaching and Learning Process

There is a large number of various and easily accessible teaching materials today, owing primarily to the internet. However, if these


resources are to be used in teaching, it is necessary to follow the stages of working with teaching and learning resources, the first of which is, as already pointed out, selection and evaluation. Selection and evaluation are carried out bearing in mind several key factors:

1. Students' characters and interests. No two students are the same and differences such as gained knowledge, cultural heritage, social position, imagination and affinities influence the way an individual observes/analyses an individual teaching and learning resource. Given the aforementioned differences, a student who once lived in a war-stricken country is going to approach the interpretation of a photograph of a city or people destroyed by war different to someone who never experienced such a thing.

2. Characteristics of teaching and learning resources. Every resource has its own specific qualities that make it unique and which should be considered if the resource is to be used in teaching. For example, factors such as composition, colour, presentation and size, should be considered in the selection of pictorial teaching and learning resources. It is also necessary to consider the fact students are going to be demotivated by pictorial teaching and learning resources which are too complex, too small or presented in an unclear way. The selection of written teaching and learning resources should involve factors such as clarity, comprehensibility, length of text and the language used, which can be too complex or unsuitable and therefore inappropriate for students of a certain age.23 On the other hand, when selecting an audio-visual teaching and learning resource, especially film, we should consider whether its merit lies solely with creating an experience or if its content is also valuable. To be specific, for the sake of being attractive and dynamic, some events are often exaggerated in commercial films whilst others are ignored; irrelevant and false events are inserted, and certain events are unduly criticised whilst a positive emphasis is put on others with no solid or true foundation.24

3. Using teaching and learning resources can be counterproductive if students fail to find the meaning of what is being represented by the

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resource, if they do not understand it or if they cannot use it independently. It should also be noted that certain teaching and learning resources, such as paintings, photographs, caricatures and films, largely depend on the subjective experience of the author who conceived and developed them, but they also depend on the experience of those who “read” them (students or teachers). On the other hand, tables, maps, diagrams, laws, legal documents and documentary films most often communicate scientifically proven facts or results that leave little room for interpretation by the author and therefore by their “readers”.

4. As a source of knowledge, teaching and learning resources should be helpful in attaining the various goals and objectives of teaching. Nevertheless, what is most often the case is choosing those resources that are related to the curriculum and which represent the key factors related to a particular moment, epoch, or a particular central thorny question or problem. Arguably, the role of teaching and learning resources is communicating facts, events and problems, but we should, at the same time, be careful not to ignore their role in promoting empathy and creativity in students and the possibility of representing, for example, the way people lived in a certain age, their worries, prejudices and doubts.

The presented selection and evaluation of teaching and learning resources is the longest and most demanding step in using the teaching and learning resources. This step is followed by their presentation and interpretation, the purpose of which is attaining the set goals in carefully planned steps.

1. The first step in the interpretation of a teaching and learning resource begins by determining its type (photograph, painting, drawing, table, document, film or poem), its source, its name and the name of its author, analysing its motives and finally determining the reasons for its use in the teaching process.

2. The second step in this interpretation is based on collecting and classifying the important information contained in the selected teaching and learning resource. It is important to use different methods in this step, such as analysis, critical observation and

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evaluation, whilst isolating and emphasizing the kind of information that contributes to the achievement of the set goals and objectives of teaching.

3. The last step in the presentation of teaching and learning resources consists of synthesising the data collected in the previous step. The aim of synthesising is to interconnect the most important presented and interpreted information or partial information created by the teaching and learning resource, which then leads to new knowledge, and skills and value profiling. This can be achieved through different means: through a teacher’s verbal presentation or a student’s independent oral presentation and/or practical work.

**Evaluation** represents the final stage of working with teaching and learning resources. The purpose of evaluation is to evaluate the effectiveness of a particular teaching and learning resource in attaining the goals and objectives of teaching; in other words, its contribution to the processes of understanding, linking and interpreting, developing desirable skills and adopting certain values of students.

**The Internet as a part of Teaching and Learning Process**

The internet is an unavoidable medium if looking for a quick way to find necessary information related to any area of human activity. It is now an essential part of every home and workplace. Using the internet produces necessary information in a short time, it is used for communication, to browse various databases, check the latest news, comment on events and even gain additional knowledge or education. Despite the numerous possibilities it offers, the internet caused mixed reactions in the beginning; it was well-accepted and used with enthusiasm on the one hand, and criticised as something that offered instant and unverified information and influenced human relations for the worse on the other. However, there are less and less opponents of the internet thanks to the fact that the today’s fast style of living requires efficient action, fast access to information, exchange of data and communication.

As well as playing a part in all areas of life, the internet has also become an essential part of teaching.27 Its infiltration into the teaching

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process caused the emergence of experts who began to emphasize its negative effect on the quality of the processes of communication and interaction, and, finally, learning.

In the context of the process of teaching and learning, the internet can be defined as a teaching aid whose role is the transmission of visual, auditory and audio-visual teaching and learning resources. The internet can also be defined as a multifunctional teaching aid since it is:
1. A source of information and teaching and learning resources,
2. An aid in interpersonal communication, and
3. A place of practical action, such as designing own web sites.

Due to the aforementioned characteristics, the internet in teaching contributes to the motivation of students, the more so because the students find it a useful, different and fun teaching aid.\(^2^8\) It is a fact that the internet contains a plethora of various information and that it can have the same negative consequences as the lack of information. Web sites can offer unverified and wrong information or simply distort the facts since they are being put there by individuals who are not experts and are guided by their own different motives. This is why a studious analysis of what the internet has to offer is vital before including it in the teaching process. In order to achieve such a thing, it is essential to educate first the teachers and then the students on the methods of critical analysis, selection, classification and evaluation of the information presented via the internet, and it is only then that its contents can serve and encourage the acquisition of knowledge and the development of various skills and attitudes of students.

Specifically, through browsing the web, students can come across different views and thoughts related to a particular topic, make a comparison of documents and paintings, design their own stories, make a caricature based on the data collected online and so on. In addition to this, the online space can be used as a space where teachers and students, individually or through cooperation, can create their own web sites, which could showcase, for example, a part of their curriculum or the students’ works and projects.\(^2^9\)

Aside from being a source of information and a place to showcase projects, the internet can also be used as a communicational teaching aid. For example, students can communicate with each other via e-mail,


which can also be used to exchange data and ideas with their teacher, related to any sort of independent work. Furthermore, internet communication can serve as a tool for the teacher to obtain timely information on the students’ work and progress. Teachers can also use the internet to create interesting knowledge quizzes whose purpose is to check the students’ level of knowledge in a fun way. In doing so, they can, for example, ask questions related to the prescribed curriculum or design assignments whose solution can be found by further browsing the internet.

It has also been found that using the internet contributes to the students’ developing various skills, such as research, technology, presentation and/or communication.\(^{30}\) In this way, thanks to the numerous and various sources and data offered to them by the internet, students learn how to:

1. Think about content,
2. Localise information,
3. Sort data,
4. Analyse and organise information,
5. Classify information within a particular context,
6. Think critically,
7. Create new ideas and conclusions,\(^ {31}\) and
8. Express themselves in an effective way.

These highlighted advantages and possibilities offered by the internet lead us to the conclusion that, despite the negative aspects related to its usage, using the internet can enrich the teaching process by way of making it more modern and effective. This is further proven by the fact that today the internet is being discussed more and more as an essential part of teaching.\(^ {32}\)


\(^{31}\) Ibidem.

Conclusion

It is easy to obtain different teaching and learning resources which can be used in the teaching process today. We are reminded of this fact primarily by the textbooks brimming with various teaching and learning resources. However, a quality teaching process is not determined by the usage of numerous modern teaching and learning resources, but by a teacher’s success in using the aforementioned resources to encourage the students to gain knowledge, profile different skills, and accept and adopt positive values and attitudes. In order to achieve the potential tasks of teaching and learning resources successfully, it is extremely important the teacher know how to evaluate the advantages and disadvantages of said resources and abide by the rules of their adequate usage. Although determining the stage of working with teaching and learning resources can seem like unifying and uniformed the teaching process, this paper presents them as necessary, bearing in mind the fact that teaching is a complex and often unpredictable process which depends on numerous factors and success of which is primarily ensured by setting the basic rules for all of its segments.