Implementation of Media and Educational Technology in Enriching Student Literacy

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Abstract. The purpose of writing this article is to elaborate on the application of media and tech nology in literacy enrichment for students as learners. Adapted and specially developed media and technology can make a huge contribution to the effective teaching of all students and help them reach their highest potential, regardless of their abilities. Technology is a combination of human, ma chine, idea, procedure and management elements. Educational technology is understood as a complex and integrated process that involves people procedurally, from ideas, tools, and organization to prob lem analysis, problem solving, implementation, evaluation, and management of all aspects of human learning. Imagine if you teach in a school where every student uses technological devices facilitate the learning process to achieve desired learning outcomes. Think about literacy concepts that need to be taught to your students in enriching literacy mastery. Record your lesson ideas, teaching approaches to be used, and tools to support learning. How will students demonstrate their understanding? What kind of teacher knowledge is needed to integrate this tool? Technology has the power to transform and enhance classroom instruction promote active learning, interaction, and engagement through a variety of tools and applications to enrich students' literacy mastery.

Keywords: Media and Technology · Educational Technology · Learning · literacy

1 Introduction

Literacy is a broad term for being able to read, write, listen, speak, see, and visually represent information to communicate and understand. Graf suggests literacy is primarily a technique or set of techniques used to communicate, decipher and reproduce written or printed material. The most common usage of the term literacy refers to a person's ability to read the written word [1]. However, with the advent of information delivery technolo gies other than print, the concept of literacy has expanded to include other things such as visual literacy (the ability to process images in two or three dimensions), storytelling

A. Kandriasari et al. (Eds.): ISCET 2022, ACSR 106, pp. 33–42, 2023.
https://doi.org/10.2991/978-94-6463-236-1_5

(the ability to act in television and film) and computer skills (the ability to record one's own information, send it electronically to others, search for information and process meaning on electronic screens), [2]. Literacy is not limited to an individual's ability to process in formation, but also includes an individual's ability to process information and knowledge to acquire life skills.

Roblyer argues, another traditional literacy field after teaching reading and are learning about great literature and learning to read literature with a keen, critical and appreciative eye [3]. There are many uses for literacy. As a technology, it gives its owner potential power; As a technology, it empowers its possessor; as a repository of cultural knowledge within a given tradition, literacy can constrain or liberate, teach or entertain, restrain or not [4].

In the context of formal education, literacy needs to be understood as a student's ability to search, find and use the information for their learning activities. Accessing information refers to activities to seek and obtain information. Maloy, Venrock, Edwards, and Woolf say, evaluating information is the process of determining its reliability and usefulness [5]. Knowing how to access and assess information is the basis for information literacy, a term that includes ability to read and understand all types of information, including paper and digital. The term literacy, at its most basic form and function, is the use of various means to communicate and be creative. Changing literacy around students and the need to communicate effectively using technological tools. Technology has the strength to convert teaching and learning in the classroom and to promote active learning, interaction, and engagement through a variety of tools and applications. Argues in the 21st century, the transition from paper-based communication to screen-based communication is changing the skills used to access and communicate information and ideas. Think about the process of reading online from printed information [6].

Knowing that digital tools will change over time, teachers must develop a mindset to think about, enhance, strengthen, and transform learning. Teachers must now consider how to effectively utilize media and technology to support learning objectives. As a teacher, it's far challenged to assist college students achieve mastery of center topics in addition to collect present day expertise and skills.

The word media comes from the Latin medium which means between or intermediaries. Media has a very broad and complex connotation meaning. Media is part of the present and will certainly be the future of mankind. Media is an important part of daily communication and time has become a necessity and lifestyle of the education system that is being prepared for students [7]. Media is anything that contains information and knowledge that can be used to carry out the learning process [8].

Media are commonly used to make the learning process effective and efficient Media as tools in the learning process. Media are used in early childhood education, youth work, professional education, and the improvement of adult education [7]. Media in the learning process goes hand in hand with technological developments.

Technology is etymologically derived from the Greek techne, meaning art, craft, or skill, and logia, meaning body of word, study, or knowledge technically, technology is the knowledge of how to make something. The term technology can be defined as the study of materials intended to apply science by creating new objects and machines. Technology is the application of knowledge for practical purposes [9]. Technology is

related to de signing tools and equipment to realize thoughts. Technology in its broadest sense is a key driver of education, but its development is rarely driven by education.

Literacy is an integral part of lesson design because it is at the core of how classroom communication takes place. For literacy content to be easily accessible to students, efficient communication is required [6]. Jenkins defines new media literacy as the set of cultural and social skills young people develop through networking and collaboration in new media [10].

The basic knowledge and skills of 21st century education is about enabling students to use media and technology in meaningful and purposeful ways for creativity and innovation, communication, research, and problem-solving. Regarding 21st century educational skills, Taylor and MacKenny states that the purpose of education is to help every student, as a learner, to become a competent and adaptable individual, now and in the future [11]. To be effective, students must share this goal as learners, and students must play an important role in their development by sharing their interests. According to Laurillard, there has always been a strong relationship between education and technology [12]. Tools and technology are important drivers of education more broadly, but their development is rarely driven by education.

Technology has revolutionized the way people find and use information Search engines, social media, electronic encyclopedias, online databases, smartphone and tablet applications, and other information storage and retrieval systems enable all topics to be explored digitally [5]. As educators/teachers, it is important to distinguish between in formational and instructional/learning. Information is knowledge, facts, news, comments, and content. Information can be presented in memos, in class, in textbooks, or on the web. Frequent presentations, whether in person, in print, or on the Internet, are general in content and the purpose is to provide an overview of an idea or subject matter to arouse interest, to provide background information, or to provide procedural details [13].

Using technology to transform student learning is one of the aspirations of teachers as educators providing students with a more interactive and stimulating learning experience is a major educational challenge today, and it is becoming increasingly complex in the classroom where students are present. Have different backgrounds and interests in different curricula and learning styles. Donovan says effective learning opportunities are created by educators who have a good understanding of the types of teaching technologies available and what they are designed for the design and use of materials is very important because it is the interaction between the student and the material that creates and reinforces the actual learning.

Donovan and Bransford suggest that teachers need to understand student characteristics in order to prepare them for quality learning experiences [14]. They say that when students enter the classroom, they have an inactive, hands-on learning experience. They want to be empowered to explore their ideas in their own way, and expect teachers to act as coaches and facilitators rather than communicators of information.

Teachers are expected to instill 21st century skills in their students to prepare everyone for productive lives and fulfilling careers. 21st century skills are technically demanding skills that include the ability to think critically, make informed decisions, solve complex problems, think and communicate creatively, and collaborate with others It represents the knowledge and understanding students need to succeed in an information-based society.

We use information in innovative ways and take responsibility for our personal lives and society at large.

Teachers are expected to be competent in using and leveraging technology in the class room [15]. This is especially true when working with 21st century learners and working on the skills outlined for them. There, teachers must not only use technology effectively in the classroom, but also guide students to use these tools to enhance their learning The emergence of new technologies requires important decisions about the best tools to integrate into the classroom.

O'bannon and Puckett citing Jonnasen, Howland, and Marra, report that students do not learn from technology but think and that technology promotes learning when it plays a role in various roles [16]. Such roles include serving as a tool to (1) support knowledge construction; (2) acting as a vehicle for information by accessing and comparing information; (3) facilitating learning by doing; using it as social media; and (5) using intellectual partners.

Roblyers points out that five elements provide reasons for using technology in education. These include; (1) increased motivation as evidenced by getting students' attention, increasing perceptions of control, and involving students; (2) unique instructional abilities such as connecting students with excellent sources of information and learning tools; (3) support for new learning approaches such as collaborative learning and problem solving; (4) Increase teacher productivity by taking time, providing accurate information, and creating easy-to-read documents; (5) Skills needed in the information age. This reasoning is reinforced by the need for students to be successful in the 21st century [17].

To teach effectively, teachers at every grade level must know how to utilize various technologies to promote and retain students who are learning. Involving students in the learning process is what teachers should do to ensure they can expand their knowledge and improve their skills. Laurillard, provides a roadmap for how teachers can be collabo rative, active designers, how to use emerging technologies to improve learning [12]. Laurillard offers insight into how technology is a resource for educational transformation, not an off-the-shelf solution, and in explaining and sharing how this resource can be used to achieve today's educational goals, Identify the important role that teachers play. Learning from various media sources informs us and challenges our thinking. As a user of these resources, you need media literacy to know how to access them, understand and analyze content, and create new media messages [18].

Becoming more aware of the technology of its presence is an important first step to understanding its potential and complexity as an educational tool, not every automatic use is positive or productive. To realize the full potential of technology, teachers and students must constantly seriously rethink and redefine how technology is used in schools and society. Garrison says educational technology in teaching continues to play a key role in the transformation of teaching and learning in education. This technology has become a catalyst for rethinking teaching and learning transactions [19].

Pathak and Chaudhary argue the main feature of educational technology, especially in terms of teaching is that Achieve three educational goals: cognitive, affective, and psychomotor. You can also link your content structure with your communication structure to achieve your learning goals. Educational technology is philosophical, sociological, psychological and scientific knowledge applied to the educational process Lessons can

be organized from memorization level to reflective level, and theories can be developed using teaching techniques associated with the lesson [20].

Teachers must now consider how to use technology effectively to support learning objectives. The decision-making process can include pedagogical approaches that most support and enhance student learning. The term technology reflects the integration of technology, pedagogy, and content to transform the use of technology to enhance student learning [6]. Smaldino, Lowther and Russel said that when learning is teacher-centered, technology and media are used to support the presentation of learning In student-centered education, the primary users of technology and media are the students themselves student-centered activities allow teachers to spend more time assessing and guiding student learning [13].

Pathak and Chaudhary say, education is a total process that develops human abilities and behavior [20]. It is a social process by which a person acquires competence and per sonal growth in a controlled social environment. Educational Technology is a systematic process in an effort educating or teaching. Educational technology is a complex, integrated process involving people, procedures, ideas, equipment, and organizations in problem analysis, solution finding, implementation, evaluation, and problem-solving management that encompasses all aspects of human learning process [21].

The term technology can be defined as the study of materials with the aim of applying science to create new objects, and mechanical technology implies a systematic approach. Laurillard suggests educators should reject the idea that new technology allows students to do it themselves, rather than just imparting already articulated knowledge and creating a more important role for teachers who are more involved in scaffolding mindset and how to develop the new types of skills needed for digital literacy [12].

For example, many studies on media literacy focus on student learning experiences in community or school-based projects [22]. There is little empirical attention to how teach ers' knowledge, disposition, or media use influence their understanding and teaching of media literacy, especially in formal school settings. Teachers play a key role in creating a learning environment that fosters digital and media literacy among young people [23]. However, research continues to focus explicitly on the role of teachers. Unusual in the extensive literature on school media literacy classes.

Educational technology can be used to guide or explore and further discussion, based on common elements of purpose, knowledge, and change: Educational technology involves the application of disciplines to enhance learning, teaching, and/or performance. Spector says that educational technology includes many areas, many activities, many people, many tools, and many opportunities that enable meaningful change [9]. There are a number of principles from different fields that guide the work of educational technologists. Many tools and techniques have been developed to assist educational technologists in carrying out their duties. Technology in education has contributed to the current state of knowledge about pro cesses and tools to meet educational needs. The use of educational information technology should focus on all these perspectives, so try to combine them in the following ways: (1), Process: The process or teaching method of using the tool considers (a) learning theories based on the science of human behavior and (b) the application of technology to help prepare students for future jobs on using the tool. Skills to "learn to learn" not just today, but for future tools not yet invented

or even imagined (2), Tools; Focusing primarily on tools that play an important role in today's profile role in the advancement of teaching and learning, it deals with the role that technical tools play as intermediaries, educational systems, and technical support increase.

Roblyers presents frameworks and technical processes in education; (1) Educational technology is the combination of processes and tools that help address educational needs and problems, with an emphasis on applying digital tools and the latest information; (2) Educational technology integration refers to the process of adapting digital tools and methods to address specific educational needs and problems; (3) Educational technology is that portion of educational technology directly related to teaching and learning applications [3].

Educational technology refers to the use of tools, technologies, processes, procedures, resources, and strategies to enhance the learning experience in a variety of settings, in cluding: formal learning, informal learning, non-formal learning, lifelong learning, on-de mand learning, work-based learning, timely learning, and others. According to Huang, Spector, and Yang, educational technology approaches evolved from early use of educational tools and have grown rapidly in recent years to include devices such as digital technology, mobile technology, virtual and augmented reality, simulation, and immersive technology, and approaches are now included. Environments, collaborative learning, social networking, cloud computing, reverse classroom, and others [24].

2 Method

The writing of this article uses a qualitative approach with a systematic literature review while this article is to elaborate on the application and technology in enriching literacy for students as learners. For teachers, the use of technology can range from assisting in performing various administrative tasks, to supporting classroom events, to meeting the unique learning needs of students in mastering specific concepts. The use and application of technology in the classroom enables teachers and students to effectively, efficiently and continuously support all learning goals.

3 Result

Teachers need to understand general literacy or the ability of students to understand or decipher information and to use, modify, and create new information. Teacher-centered education uses technology and media to support lesson presentation. For example, teachers use audio from electronic devices, whiteboards, and web-based files to support student learning goals and objectives, from short clips to full-length documentaries that demonstrate specific concepts. Hobbs says the curricular approach taking a text to media literacy and a constructivist approach to learning, it advocates a learner-centered pedagogy that draws on students' everyday understandings, experiences, and use of media in and out of school [25].

Digital tools expand and enhance the ability of teachers to fulfill their many roles and responsibilities as educators. These tools enable "digital teachers" to plan and deliver interactive lessons while participating in a global community of practice with other

educators The examples below illustrate the possibilities of existing in a well-equipped digital environment. Digitize students through classroom learning, a seamless learning component where technology extends environmental education beyond the walls of the class room. Digital devices and connectivity extend existing learner skills in many directions.

Educational experiences should provide many opportunities to acquire new knowledge and skills to be included in the critical literacy kit. Teachers must prepare and apply and inculcate the eight main areas of literacy that students need to enhance learning, competence, and achieve a successful career. Smaldino, Lowther, Russel suggest eight main areas of literacy as follows; (1)Text Competence; Students need text competence to use text-based sources as a means of gathering, interpreting, and communicating information; (2) Computer Skills; encompasses the knowledge and skills teachers need to select and use technology to improve student learning opportunities. This includes knowing how to operate the system, how to identify hardware and software problems and find solutions; 3) Reading comprehension in distance learning. It consists of her three main elements that apply when teachers and students are separated by time or distance. Designing and facilitating learning experiences; modeling and facilitating learning; and a commitment and commitment to lifelong learning; 4) Cyber Learning Capabilities; using a variety of technological tools to connect students to people and resources beyond the regular classroom. To make the most of their learning in this environment, students need cyber learning competencies or the knowledge and skills to use these tools effectively; 5) Visual Ability; Textbooks, workbooks, digital media, newspapers, books and magazines are full of visual images In order for students to learn from the visual media included in their lessons, they need visual literacy, the ability to accurately interpret and create visual messages; 6) Audio Literacy; Audio has always been an important aspect of education, and teaching and presenting information orally to students remains the main task of teachers. Students need her audio literacy to understand listening and the role of listening in learning Additionally, as technology becomes more influential in the classroom, you'll need the skills to create audio; 7) Video Literacy; With increasing accessibility in digital formats such as DVDs and downloadable files, video is increasingly being integrated into teaching and learning activities. To learn effectively from video, students need video literacy skills to understand and evaluate video messages and create videos that get exactly the results they want; 8) Media Literacy; There are various media that can be incorporated into the instructions, as indicated by this text. Media−based education must support students' me dia literacy knowledge and skills. This means that students must be able to interpret and create different media such as text, audio, images and video, often combining them into multimedia [13].

For educators tasked with preparing students for social standing, it is critical that teach ers and students are proficient with these various technical tools. For this reason, every educator needs to master important technology skills not only to complete administrative and instructional tasks but also more importantly to prepare students as learners for today's life.

However, educational technology, like all other aspects of education, cannot be used successfully outside of education, the goals and objectives it supports conversely, these

powerful educational resources can only be effective if they are recognized as components and integrated into a standards-based teaching and learning system. The application of educational technology itself is not the goal of education. Rather, the rationale for technology integration is to support and facilitate the education required to meet the established standards of 21st century learning. Today's standards−based education, technology, media literacy, and technology are essential. It is therefore useful to investigate technical standards frameworks that can be used to define and inform large-scale educational and technical requirements.

Technology is successful in enriching the learning environment, all teachers as educators need to achieve their technological competence [26]. Teachers as educators are accustomed to facing and overcoming challenges. It is like the profession to optimistically apply all available skills and resources to help students learn. The challenges inherent in the profession provide the framework and motivation to face professional obstacles with positive energy and action. Just as technology presents challenges for educators, so does technology present unique opportunities.

Technology is subject to constant change new tools are emerging every day to support teaching and learning, and while existing tools are evolving, others lag slightly behind. The positive aspect of this change is the constant and growing supply of new, innovative, and useful tools available to the classroom. The opportunities created by the evolution of technology offer new perspectives to 21st -century learners.

4 Conclusion

As the affordability and availability of educational and personal technology tools in creases, so does the potential for greater success and independence for people with communication, learning, and cognitive challenges. Teachers, therapists, and families must embrace and adapt technology to empower people with special needs the focus is on general issues and opportunities related to technology and students, including how technology and digital media can be tools for teaching and learning. Teacher education in the digital age and its impact on teacher educators. It connects theory of student development as a learner to practice, and links research with practice.

Understanding the use of teaching, learning, and technology to improve and facilitate processes requires a deep understanding of the problem. Modern digital technology and extensive information have added yet another dimension to this. As a result, teachers are no longer seen as intermediaries of knowledge, but as mentors and companions. Students are also required to process, analyze, and use available information rather than memorizing information. With this in mind, most developed countries have taken steps to transform teaching and learning processes and integrate technology into them in a consistent manner. Technology is an essential and unavoidable part of 21st -century life and learning. All aspects of school life are enhanced and enabled by media and technology. Technology is essential to ensure that individuals maximize their potential by personalizing their learning and development.

For teachers as educators and also professionals who are tasked with ensuring that the next generation is ready to place them as individuals with rich insights and take advantage of media and technology, as well as making the community aware of technological

literacy. Pedagogical technology skills are essential skills for today's educators. They are necessary for many administrative and educational tasks that teachers do on a daily basis. These are even more important in teaching and modeling the skills 21st century students need as learners, and in using and applying media and technology in the classroom.

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