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DÜZENLEME KURULU

İÇİNDEKİLER

Technology Enhanced Constructivist Learning Approach In Social Science Education

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ABSTRACT

The primary purpose of the present paper is to report the role of educational technology as an opportunity to integrate technology to support constructivist learning pedagogies into the social studies classroom. The paper provides a general overview of the definition of constructivism, the theoretical basis for introducing educational technology in social studies, the role of technology in a constructivist classroom, and also extensively investigates the factors behind the teachers' use of constructivist theory and pedagogy as the principles for the integration of technology in social studies, how constructivist approach could lead to change in the nature of the social studies education. The paper presents a brief definition of educational technology, the domains of usage, social constructivism, the relationship between constructivism and social studies education, and then, introduces a constructivist model for employing technology in social studies in term of pedagogical techniques and practices. The present paper adopts the methods of the literature review of theoretical information relevant to the Technology Enhanced Constructivist Learning Approach in Social Studies classroom. The present paper aims to make recommendations for educators in the area of teaching and how to use educational Technology based on pedagogic approaches and principles of constructivist learning theory.

Keywords: Educational Technology, Constructivism, Social Science Education

SOSYAL BİLGİLER DERSİNDE TEKNOLOJİDE GELİŞTİRİLMİŞ YAPILANDIRMACI ÖĞRENME YAKLAŞIMI

ÖZET

Bu çalışmanın temel amacı, eğitim teknolojisinin, yapılandırmacı öğrenme pedagojilerini desteklemek amaciyle teknolojiyi sosyal bilgiler dersliklerine entegre etme fırsatı olarak bildirmektir. Bu yazı yapılandırmacılık tanımını, sosyal bilimlerde eğitim teknolojisinin kullanilmasi için teorik temeli, ayrica ogretmnelerin sosyal bilgiler egitimine teknolojiyi entegre etmesini saglayan yapilandirici teori ve pedagoji faktorleri, yapılandırmacı

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yaklaşımın sosyal bilgiler eğitiminin doğasında nasıl bir değişikliğe yol açabileceğini genel bir bakis ile sunulmustur.

Bu makale, eğitim teknolojisinin kısa bir tanımını, kullanım alanlarını, sosyal yapılandırmacılığı, yapılandırmacılık ile sosyal bilgiler eğitimi arasındaki ilişkiyi sunmakta ve daha sonra, pedagojik teknikler ve uygulamalar açısından sosyal araştırmalarda teknolojiyi kullanmak için yapılandırmacı bir model sunmaktadır. Bu yazıda, literatür taraması yöntemi benimsenmiştir ve Sosyal Bilgiler dersinde Teknoloji Geliştirilmiş Yapılandırmacı Öğrenme yaklaşımı ile ilgili alanyazın taranmistir. Bu yazı, eğitimciler için ve pedagojik yaklaşımlara ve yapılandırmacı öğrenme teorisinin ilkelerine dayanan eğitim teknolojisinin nasıl kullanılacağı konusunda önerilerde bulunmayi amaçlanmaktadır.

Anahtar kelimeler: Eğitim Teknolojisi, Yapılandırmacılık, Sosyal Bilimler Eğitimi.

INTRODUCTION

Nowadays, it is expected from a society that university graduates will have the skills to collaborate, engage in teamwork, teach, negotiate and lead. Such people are expected to be able to obtain and interpret data, as well as to be able to learn, reason and find solutions to issues. Pretty much every professional organization desire more active types of learning, and wants students to be involved in more hands-on tasks, small group activities, projects, performance-based evaluation. They also call for self-reliance and the capacity to carry out a self-directed investigation. The importance of critical thinking, decision making and problem resolving skills have been highlights by many professional organizations, including the National Council for the Social Studies (NCSS), the National Council for Teachers of Mathematics (NCTM), and the American Association for the Advancement of Science (AAAS). Social research attempts at reformation highlight the various different teaching and learning styles used within education(National Council for the Social Studies, 1994). Previous studies have indicated that has social research education is predominantly reliant on teaching talking, fact memorization, passive learning and textbook (Shaver, J. P., Davis 0. L., & Helburn, 1979). It has been advised by the NCSS Curriculum Standards for Social Studies that students should be urged to process learned information of various levels at the same time, instead of constantly beginning at encouraged to process what they learn on several levels simultaneously, rather than always low-level factual information and waiting until a later stage to think critically. Students can be requested straight away to apply prior knowledge to critically consider new information, and to apply such information in debates and when making informed decisions (National Council for the Social Studies, 1994). A school culture that emphasizes the importance of self-reliance and collaboration is crucial. Furthermore, students must be equipped with general critical information-handling skills. That is not possible through the traditional instructional model, however, a constructivist model for learning could achieve this. Nonetheless, the evaluation of computer technology and its effectiveness with social research is still a relatively new domain.

EDUCATIONAL TECHNOLOGY

Most interaction technology we use in our everyday lives - for example, faxes, PCs and email -was originally designed for business use before it became part of our social life (Miller, 2011). The term educational technology refers to a methodical and orderly process for harnessing modern technology to upgrade the quality of education (namely, its effectiveness, thoroughness, and objectivity, etc.). It is a systematic and logical process for interpreting the implementation and assessment of the process of education, namely learning and teaching, and assistance with the application of up-to-date teaching methods. It includes a range of materials and resources, ways of organizing work and relationships: i.e. the way in which all participants who take part in the educational process act and behave (Stošić, 2015).

Delgado, Wardlow, McKnight, and O'Malley (2015) point out that the term educational technology has not been strictly defined and can refer to computer-assisted instruction (CAI), games, simulations, laboratory instruments or technology hardware and software. Education technology is defined in the same paper as hardware and software which supports Learning goals, rather than an innovative teaching method (Delgado, Wardlow, McKnight, & O'Malley, 2015).

There are three areas for application of technology in education: as a tutor (the computer provides instructions and guidance); as a teaching tool; and as a learning tool (Stosic, 2015).

Educational technology can improve learning outcomes, and facilitate the understanding of themes and educational subject matters. As Murati & Ceka (2017) point out, educational technology speeds up the rate at which students learn, facilitates encouraging the learning process and helps students to achieve long-term knowledge.

Cuban (2001) views computers as drivers of educational practice reforms and states that teachers should use them at every educational level. Jonassen (1996) asserts students increase the capacity for their own cognitive development as students use search engines, databases, spreadsheets, multimedia and e-mail when they are working on their projects.

According to too much empirical evidence, the use of computers in education brings a range of advantages. Computing technology can create an environment which is motivating for students (Ebner & Holzinger, 2007). Computers increase the opportunity to provide students with critical thinking, reasoning, problem-solving and decision-making abilities, their creative skills and their ability to understand how to learn (Thomas, 2003).

Furthermore, it has not yet been obviously determined whether the use of computer technology in education has a different impact depending on students ' initial level of academic achievement. Gorjian, Moosavinia, Ebrahimi Kavari, Asgari, & Hydarei (2011) reported that higher achievers could largely derive a benefit from learning new materials. In comparison, Mo et al. (2015) add that lower achievers could certainly gain more from computer technology since they can use it regularly to catch and keep up with their peers and learn from the feedback provided by computers.

Internet is the most significant element of modern technology. It has enabled

individuals to access vast amounts of information drawn from a broad number of sources. The Internet is a dynamic store with a range of data from various sources. In terms of education, the Internet provides learners with three major types of learning tools: tools for asking questions, communicating and constructing knowledge (Koçak, 2010).

A number of studies have looked at how Internet usage and/or gaming affect cognitive abilities, social skills, relationships, violent behaviour and a grasp of reality in children and adolescents (Rashid & Asghar, 2016). Subrahmanyam, Greenfield, Kraut, & Gross (2001) found that long-term use of computers and the Internet -irrespective of whether this was for gaming purposes or not - can result in long-term enhancement of cognitive skills - and thus academic achievements.

Hu & Kuh (2001) analyzed data from 71 four-year US colleges and universities (N=18,344) and determined that Internet use had a positive impact on students' personal and intellectual development, as well as their career planning.

CONSTRUCTIVISM

Constructivism as a learning theory goes back a number of decades (Phillips, 2000). Constructivist teaching as a theory or practice, however, has only received attention for approximately one decade.

Constructivism encompasses both the philosophical and psychological sphere in that it is propounded as learning theory (psychology) as well an epistemological or knowledge theory (that is, philosophy, in particular, epistemology). According to Matthews (2012), Catherine Fosnot (2013) provides a general overview of constructivism in her often-cited anthology on the subject (Fosnot, 2013; Matthews, 2012).

The theory of constructivism is concerned with learning and knowledge. Constructivism, as a theory, tries to explain both how individuals get to know and what the process or phenomenon of knowing is. The Constructivist theory defines knowledge -on a basis of philosophy, psychology, biology, and science, so it sees knowledge as not something that exists in the form of unambiguous truths that can be unearthed or transferred, rather, constructivism sees truth as something that is subjective, emergent, and comprised and developed by descriptions and explanations that prove viable and emerge from human attempts to understand the world. In summary, constructivism maintains that knowledge is meaning-making within mankind's societal and cultural discussions (Fosnot, 2013)

Social constructivism is the term given to Vygotsky's constructivism, as this psychologist highlighted the significance of societal environments as part of the learning process. Explicitly, Vygotsky defined learning as an activity that is collaborative in nature, expounding on the crucial importance of both societal and historical background in construct new knowledge. Learning naturally occurs while children engaging with internalize experiences and live and interact with their social contexts. Vygotsky points out that cognitive development only takes place according to specific ranges and at a certain stage of personal development in life. an assistant from an educator means that children can nevertheless come to understand more challenging subjects than they may otherwise be unable to understand

without such assistance (Vygotsky, 1978).

The general sense of constructivism is that it is a theory of learning or meaning-making that individuals create their own understanding on the basis of interaction between what they already know and believe and ideas and knowledge with which they come into contact (Richardson, 2003). For the purposes of this study, constructivism focused on learning that is guided through hands-on experiences, inquiry, and collaboration in order to make subjects relevant and internalized by the students.

Social constructivism emphasizes the social nature of knowledge (Ruzic, 2011). Social constructivism emphasizes social interaction as the source of knowledge, rather than individual cognizing (Garrison, 1998; Gergen, 1995; Prawat & Floden, 1994). Indeed, for social constructivists "the process of personal meaning-making takes a backseat to socially agreed-upon ways of carving up reality...the community is the prime source of meaning for objects and events in the world" (Prawat, 1996; as cited by Ruzic, 2011). while also incorporating a total of four of the principles, specifically (Garrison, 1998; von Glasersfeld, 1998): First principle concerns that knowledge is not accumulated in a passive manner; it is, in fact, accumulated through an individual's cognizing. The second principle asserts that cognition functions as a pragmatic process, which ensures that the behaviour and the cognition of an individual are more appropriate and viable within certain situations or regarding specific aims. The third principle suggests cognition is not something that determines a specific and precise representative version of the real and external world, rather it is an individual making sense of their experience. The fourth Principle determines there are both neurological as well as biological construction processes within the foundations and roots of knowledge, which is also based on interactions of language, culture, and society.

The social constructivist believes that importance, meaningfulness, and understanding itself are all communally developed phenomena in conjunction with other human beings. Herein, the main aspects of the theory include: a) the presumption that individual people try to take their experiences and rationalize them through the development of a societal model of reality and its various processes; and b) the primacy of language as the main communicative medium by which individuals can develop and devise reality itself, according to Leeds-Hurwitz (2009).

CONSTRUCTIVISM & SOCIAL STUDIES EDUCATION

The social studies is the mirror that contains different learning areas of "anthropology, archaeology, economics, geography, history, law, philosophy, political science, psychology, religion, and sociology, as well as appropriate content from the humanities, mathematics, and natural sciences" (National Council for the Social Studies, 1994, p. vii). The main purpose behind social studies education to enhance the skilled citizens who have the ability to criticize and involve actively in the democratic society(Berson, 1996a)

However, Social studies education were traditionally viewed from a positivist perspective, according to (White, 1999; as cited in Schoeman, 2013) and knowledge was closely linked to searching for truth, namely finding the knowledge which related to a single

reality. Constructivism has a different approach, one which is less rigid, more culturally relative and philosophical since knowledge is created on the basis of personal and social experience (Ruzic, 2011). Since relativism is the foundation of constructivism, it follows that knowledge - its truth, falsity, and worth - reflects and is relative to the personal, cultural or historical point of view. Kluge (2008) summarizes this point, saying that claims that something is true are merely personal or cultural opinions or social agreements.

İn addition, This reliance on a social or activity source of knowledge brings language, culture, and context to the forefront (Dewey, 1896; Gergen, 1995; Lev Semenovich Vygotsky, 1986). Ultimately, for social constructivism, truth is adaptive and socially determined meaning that "is not to be found inside the head of an individual person; it is born between people collectively searching for truth, in the process of their dialogic interaction" (Bakhtin, 1984, p. 110; As Cited by; Coombs, 2015).

As a result, Doolittle & Hicks (2003) points out that constructivism demands a pro-active creation and alteration of thoughts, notions, and comprehension in the light of experiences which take place against socio-cultural backdrops. In order to create understanding, a number of issues need to be clarified, namely: what can be termed valid knowledge (epistemology); and what is considered the existence and/or reality (ontology). (Lee & Smagorinsky, 2000) state that:

Learning from [a constructivist] perspective, Learning is viewed as a self-regulatory process of struggling with the conflict between existing personal models of the world and discrepant new insights, constructing new representations and models of reality as a human meaning-making venture with culturally developed tools and symbols, and further negotiating such meaning through cooperative social activity, and discourse (p. 230).

Fleury (1998) states that constructivism underlines the importance of recognizing the individual learner has an active part to play in constructing knowledge, of realizing that learners bring their social and personal experience to bear on their learning and that the knowledge they gain may not accurately mirror external reality. Ruzic (2011) asserts that embracing these assumptions transforms social studies from being a search for truth into a search for perspective.

From a constructive point of view, learning is considered as a process that regulates itself within the process and conflict of reconciling incongruent positions and individual understandings of reality, new information that seems contradictory to that view of reality, and the making of new models and semantic systems to describe reality as a whole. As humans, the agents within such a process, we are part of an effort to create meaning via discourse, debate, and societal activities within our various practicable communities. According to Fosnot (2013, p. ix), while constructivism is not a pedagogical method, it recommends a learning process that disagrees with the pedagogical methods utilized by many educational institutions.

PEDAGOGICAL CONSTRUCTIVISM, TECHNOLOGY AND SOCIAL STUDIES EDUCATION

The goal of creating a philosophical and theoretical basis for introducing Internet technology in social studies is based on the need for a vigorous and effective profession of teaching. This theoretical and philosophical foundation will show why particular forms of teaching, including the use of technology, are essential within the classroom. Constructivism can fulfil this need and provide an answer to why technology needs to be integrated into social studies. Therefore, the sections which now follow will offer the basis from which to design, implement and assess technology-based teaching of social studies (Allsop, 2016).

Manfra & Bolick (2017) note that there has been little theoretical attention paid to how to apply technology in the classroom and the field of social studies - although there is a general consensus that this needs to be done. Gallagher (2004) suggests that constructivism could be the appropriate theoretical basis for evaluating the integration of technology and social studies. A number of researchers (C. White, 1999; Hooper & Hokanson, 2000; Lorsbach & Basolo Jr, 1999; as cited by; Hicks, Doolittle, & Lee, 2002) have argued in favour of using a constructivist theoretical approach to underpin the use of technology in social studies classrooms.

A number of social studies educators - including (Braun Jr & Risinger, 1999; Cogan, Grossman, & Liu, 2000) - have stated that getting students ready to become active citizens provides the ideal opportunity for encouraging them to critique and examine their world by using interactive technologies. The main purpose of the social studies subjects to give an opportunity to the individual to promote his conscious towards past, current and future social issues in the communities. Therefore, it has a significant role in build and enhances the child's social character (Tarman, 2010). In other words, social science educations provide the learner with the knowledge and competence to prepare them to overcome the real-life problems and helping them to enhance their decision-making skills to facilitate their life (Özmen, 2011)

Thus, being able to consult up-to-date knowledge resources, archives and experts through information technology can only be useful in a field which (a) has come to see and acknowledge the major implications for teaching and learning social studies from a constructivist point of view (M. J. J. Berson, Johnston, Cruz, & Duplass, 2000); (Braun Jr & Risinger, 1999); (Scott & O'sullivan, 2000). In addition, (b), social studies encourage students to develop the intellectual discipline and abilities to critically analyze primary sources and consider data sets, while examining contemporary and past issues (White, 1997).

As a result of using technology in the education, (Attwell & Hughes, 2010) argued that the educational approaches have been regenerated "by a movement towards student-centred education or a movement from teaching to learning. This has contributed both to discussions over new roles for teachers and attempts to redefining learning".

At present, the research studies on the assimilation of technology within social studies support the idea of using the Internet, thanks to its almost limitless choice of sources, and its ability to link individuals and groups together, across space and time (Berson et al., 2000; Braun Jr & Risinger, 1999; Scott & O'sullivan, 2000).

Schwarz & de Groot (2011) add that learning environments have been designed according to the tenets of constructivist teaching, which actively involves the learners in constructing knowledge through cooperative learning in a real-world environment (Alt, 2016), Meanwhile, de Kock, Sleegers, & Voeten (2004) suggests that this type of learning practice enables students to regulate their own learning. McGrath (2007) posits the notion that constructivist learning reflects a more 'holistic' concept whereby what is learned connects with the everyday life of the student, both personally and professionally. Putting the learner at the centre of this tailored teaching and development is more evolved and enduring than traditional teaching methods that are based on straightforward instruction (Alt, 2016).

Educational technology is of utmost importance in accomplishing the key aims and objectives of project-based learning. Furthermore, it also allows students' to explore and reflect upon the content. The internet is a powerful tool and serves as a wearisome example of how technological tools can be used effectively in academic environments. Incorporating multimedia technologies in the internet world has allowed for the development of interactive teaching materials and for a new way of delivering classes. Nonetheless, such technologies tend to serve as productivity tools for spreading knowledge via lectures, drills, practices, and tutorials. Juniu (2006) describes this as an example of how technology can enhance the curriculum instead of being merely integrated into a current curriculum.

More and more experts (including Karagiorgi & Symeou, 2005; Mayer, 1999; Jonassen, Howland, Marra, & Crismond, 2008) are pointing out the benefits of modern technology for constructivism Electronic technologies have an infinite ability to identify information relevant to a question or concept, presenting ideas graphically and in auditory forms, and offering individual and group interaction regarding learning content and non-linear information connections. This enables the brain to understand complex interrelationships more easily, through stimulations of real-life situations or issues. These are vital aspects in the processes of understanding, arranging and using knowledge in the way that constructivists outline (Landis, 2008).

According to Doolittle (2001), "It is time within social studies education to take a long look backwards at the beliefs, assumptions, and theory that underlie the domain, so that the look forward to practice and pedagogy is clear, informed, and valid" (p.502). The six principles of the constructivist theory are intended to be interconnected and converging, rather than being discrete (Doolittle, 2014). The first principle concerns how knowledge is constructed and how meaning is made through a process that is individual and socially active, while the second asserts that the construction of knowledge is affected by social mediation within the cultural context. Principle three establishes that real-world contexts influence knowledge construction and principle four that the learner's experience and own knowledge must form a framework for the construction of knowledge. The fifth principle suggests that multiple perspectives allow knowledge construction to be more profoundly integrated, while the sixth and final principle determines that self-regulation, awareness, and meditation are all keys to the construction of knowledge.

One of the most central aims of Constructivist approach is that it will result in individuals being independent and able to manage and guide themselves through life. It is

therefore important that students are inspired to regulate and mediate their own activities, using their enhanced self-awareness to manage their personal goals and progress. These important processes; self-regulation, self-mediation, and self-awareness, combine to encourage each student to be able to effectively construct their knowledge, which leads to them embracing a lifelong learning strategy (Doolittle & Hicks, 2003).

When teaching practice is rooted in social constructivist theory, it uses active learning that is experiential in nature, allowing a rich and diverse knowledge to be constructed. This theory would argue that learning situations are particularly effective when they fulfil a number of needs (Masciotra, n.d.): (1) the learners' experience and previous knowledge is considered; (2) learners are involved in active experiences; (3) the learner's capacity to learn dictates the complexity of the teaching; (4) learners have the opportunity to be autonomous; (5) the teaching is relevant to the learner's personal plans; (6) the learner encounters a range of new perspectives; (7) learners are encouraged to reflect on their actions; (8) learners should be autonomous and adapt the learning to their real-life situation.

In order to create a shift from technology-as-teacher to technology-as-partner, the objectives of social studies education must be accomplished (Jonassen, Peck, & Wilson, 1999). Nonetheless, it is important to note that, in accomplishing such objectives, it is not the technology that is the driving force, but the way in which the technology is employed as a tool that promotes citizenship. It is important that the following pedagogical techniques are included when employing technology as a developmental tool in a constructivist model (Doolittle & Hicks, 2003).

First Strategy: Teachers and students must know how to use technology as a learning tool.

Second Strategy: Teachers must be able to employ technology to build authenticity, as this will make the process of student learning easier.

Third Strategy: Teachers must use technology to improve local and global social interaction so that are able to understand various perspectives on people, events, and issues.

Fourth Strategy: Teachers must develop student knowledge employing technology as a tool to develop on students' existing knowledge and interest.

Fifth Strategy: Teachers can improve the viability of student knowledge by applying technology as a channel for providing timely and meaningful feedback.

Sixth Strategy: Teachers must aid students in achieving academic independence by applying technology as a tool to develop autonomous, creative, and intellectual thinking.

SOCIAL CONSTRUCTİVİST VİEWS ON TEACHİNG

The social constructivist approach is built upon the belief that knowledge is created through sociological and cultural dimensions, and that individuals' activities determine their cultural mechanism for understanding the truth (Kim, 2001). Moreover, Richardson (2003) explains that social constructivist's pedagogy concentrates on the importance of practice to improve students' learning, starting with individual students and moving onto groups of

learners:

• Multiple reflections and the intricacy of world views are considered from a wide spectrum of social knowledge sources.

• Effective cooperation and collaboration, non-competitive, independent contexts, in which group culture determines individuals' perspectives of specific contexts, underpin the approach.

• Stresses the importance of innovation and reflection in education.

• The development of knowledge requires an authentic teaching framework.

• Highlights the importance of implementing different evaluation and guidance techniques to develop new concepts and critical thinking skills.

• Transparency and the ability to motivate learners are essential teacher traits.

• There must be a learning environment that is conducive to providing abundant information and facilities (technological and non-technological).

• Ethical concerns, pedagogical skills and content-related knowledge are vital for supporting students' learning. Teachers must thus be able to teach and create a learning environment conducive to enhancing students' learning. Content and resources must be relevant to the topic, to students' existing knowledge and available at the right times.

• The primary focus is on the development of concepts and background knowledge within a social context (Richardson, 2003).

Six key features of the social-constructivist teaching approach have been identified by (Mezirow & Taylor, 2009) as follows: personal experience, critical thinking, discussion, a holistic outlook, identification of context and authentic learning. Taylor's subjective perspective thus implies that a teacher must be able to use both their own subject knowledge and authentic learning activities to enhance students' learning. Nonetheless, Mezirow & Taylor's approach (2009) made no mention of whether the teachers' access to and provision of technological resources are significant in creating a meaningful learning environment. The teachers' ability to use such features to encourage learning within their students, however, does indicate that a social constructivist approach is adopted.

APPROACHES FOR LEARNING OF SOCIAL CONSTRUCTIVIST PRACTICE

Within the constructivist teaching approach, active learning, authentic learning and cooperation are fundamental, alongside different approaches to sustainability (Adams, 2006; Kalpana, 2014; Karagiorgi & Symeou, 2005; Shah, 2019).

ACTIVE LEARNING

Teachers should design any lessons addressing complex issues with effective teaching strategies to encourage students to engage in different learning methods. This can allow the students to address the complex issues that they encounter. Teachers must aim to employ

school practice, field trips, computer activities, portfolio planning and performative journals in order to facilitate knowledge development amongst their students (Beck & Kosnik, 2006).

AUTHENTIC LEARNING

Dewey (1916) points out that, within genuine teaching, content must be real, with increased resources and tools being used to give students more opportunities to perform. Furthermore, it has been found that students engage more often and interactively if they are involved directly in the tasks. This means that students are afforded an opportunity to create sophisticated, innovative and diverse solutions (Dewey, 1916).

What's more, the importance of establishing a realistic learning setting is also highlighted by Dewey. Incidentally, this is also fundamental within the social constructivist learning approach (Gordon, 2009b; Kanselaar, 2002; Mezirow & Taylor, 2009). It is expected that teachers following the social-constructivist teaching style must allow students to grasp the interaction within realistic settings, stimulating reflection and practising the new concepts. Thus, teachers learning is not merely superficially, and nor do students only learn on a surface-level. It is recommended that teachers employ various methods, including case-based learning, cognitive practice, and situated learning (Kanselaar, 2002).

APPROACH FOR COLLABORATIVE LEARNING

Social constructivist teaching approaches focus on developing cooperative learning settings conducive to facilitating reflection and recognition of individual beliefs grounded within social constructivism (Karagiorgi & Symeou, 2005). Co-operative learning is at the heart of the approach and serves to allow teachers to overcome the key problems relating to social discrepancies (such as ethnicity and cultural inequalities) in order to ensure that there is a compositional nature of groups when developing learning societies (in other words, to keep a balance between gender and age whilst still allowing for diversity) (Renshaw & van der Linden, 2004). Cooperative learning is thus prefered since it can promote social constructivist education (Raes, Schellens, de Wever, & Vanderhoven, 2012). Collaborative education strategies implement the following social constructivist principles:

• The development of social space in which conditions for strong and active discourse are maintained.

• Adheres to a holistic, integrated approach involving cognitive knowledge and understanding of the field of epistemology.

• The encouragement of critically reflecting upon assumptions which are considered personally integrated.

It thus creates a setting in which students are encouraged to engage in discourse and critical reflection of their diverse views in order to develop knowledge. Teachers are thus expected to pass their power and influence onto student to facilitate student to teacher

collaboration.

Similarly, (Gordon, 2009a, 2009b) discusses collaborative methods, suggesting that a dialogue should be developed according to both class and small-group discussions. He goes on to explore students' social issues, including those resulting from central curricula. The planning of learning activities must take into account the students' capacity to create, assess and convey arguments, as well as their abilities to negotiate differences. Learning is thus believed to be more beneficial if it takes place in a vivid and interactive setting, which can allow for different views to be expressed, and often results in alternative approach thinking. Collaborative learning is a social technique in which learning occurs through groups, and also includes training of specific research conditions, decision making and sense-making (Isaacs, 2013). It is thus that renders learning collaborative in all areas, from lesson planning to lesson conduction and the final lesson evaluation. It is suggested by (Dekker, Elshout-Mohr, & Wood, 2006, p. 156) that the following social norms must be understood and maintained within collaborative learning:

• Teachers and students must continue to solve a problem through discourse and create strategies which they can share in pairs or groups.

• Students and learners must agree on a one-way approach to an issue once it has been collaboratively resolved.

• If multiple resolutions to the issue are offered, students and teachers must work together to overcome this.

However, there can be variations in social collaborations if teachers give students some degree of autonomy. There are some instances in which teachers have to rely on their own professional and psychosocial experiences to guide students. This was found by Duffy & Jonassen (2013), who highlighted the importance of students being guided through the use of modelling, mentoring and scaffolding approaches in cases where they have limited understanding of knowledge building. In this way, teachers have to uphold teachers are an asymmetrical and conditional collaborative relationship with their learners. Although social knowledge construction is important with the social constructivist approach, not every social setting can improve knowledge development, as (Mayer, 1999; as cited by; Karagiorgi & Symeou, 2005) found. Raes et al (2012) pointed out that meaning can be socially constructed if students are enabled through their knowledge building to involve their own ideas, concepts and hypotheses in real-life practices.

METHODOLOGY

The present paper adopts the methods of the literature review of theoretical information and some pervious empirical studies relevant to the Technology Enhanced Constructivist Learning environment in the Social Studies classroom. The paper presents a brief definition of educational technology, the domains of usage, social constructivism, the relationship between constructivism and social studies education, and then, introduces a constructivist model for employing technology in social studies in term of pedagogical techniques and practices.

RESULTS BASED ON PREVIOUS STUDIES

In this section, the researchers review some findings of empirical studies to illustrate how technology support each dimension constructivist learning environment, what extend technology enables students to develop thinking skills, and help them to construct knowledge according to constructivist learning principals:

First Finding: Wang, Q. (2009) investigated how to design a web-based constructivist learning platform. Altogether, trainee teachers (10 males and 14 females) taking part in a course called "Constructive learning with the Internet" took part in this research. The key objective of this course was to help teachers develop knowledge using the principles of constructivist learning. Furthermore, it was also hoped that they would learn to use their knowledge with web-based CLE development (Wang, 2009). It was revealed in the research that **pedagogical design is vital in the development of ICT-enhanced learning setting.** The key factor determining the success of a learning style is the pedagogical design, and not access to technology (Mandell, Sorge, & Russell, 2002).

Second Finding: In an online questionnaire called "Evaluating Students' and Teachers' Perceptions of Constructivist Multimedia Learning Environments" carried out by Dorit Maor and Barry J. Fraser (2005), 221 Grade 10 and 11 students took part and it was found that **students reported a desire to be more involved in negotiation, inquiry and reflective thought**. Furthermore, a gap between students' expectations are real experiences of the online program was identified. The relationship between students' expectations and their actual experiences has highlighted a continual need for further improvements. To be more precise, it seems that advancements to technical features of the learning environment and quality of internet-based multimedia (particularly with regard to real-life problems) also the most likely factors to encourage students to think critically and become more reflective learners(Maor & Fraser, 2005).

Third Finding: More recent research carried out by N. Nguyen and John P. Williams (2017) investigated the interactions between ICT and sociocultural and constructivist learning principles and, through interviews with teaching staff, revealed that **in such circumstances, students engaged more with the ICT, which allowed for the development of new teaching and learning methods** (Nguyen & Williams, 2016).

Fourth Finding: What's more, (Nur, Kecercio, & Arabacio, 2009)(Nur et al., 2009)Meryem Nur Aydede, TeomanKecercioglu and SertaçArabacioglu (2008) found similar results when researching eighth-grade students who would engage with computer technologies in constructivist learning for a science and technology course. Altogether, 47 students took part in the research, from which 24 were assigned to the experimental group and 23 to the control group. Constructivist principles underpinned all the courses in the experimental group; however, conventional teacher-centred methods were applied in the control group. As opposed to the control group, **the experimental showed better academic achievements, higher levels of motivation, self-direction and more engagement in self-initiated tasks**(Nur et al., 2009).

Fifth Finding: Another important piece of research is that carried out by Azizinezhad & Hashemi (2011), who explored the views of elementary teachers regarding the adoption of technology to carry out constructivist activities in class. Private schools were the target population of this research, with every classroom possessing computers that could be used by both students and the teacher. The networking of computers was such that it allowed students to interact with each other and the teacher. Questionnaires were used to collect information from both teachers and students. Research results indicated **that teachers typically regard technology as an effective means of improving constructivist practices and for motivating their students**.

Sixth Finding: Akinola (2011), who found during his research that **students' academic performances were enhanced through web-based teaching and that it also positively influenced the building of their democratic consciousness** (Akinola, 2011). It thus appears that problem-solving skills, reflective inquiry and decision-making skills are crucial topics are with social research and that these skills can encourage effective citizenship in a democratic society (M. J. Berson, 1996b; Rice & Wilson, 1999)

Seventh Finding: research carried out by Heafner (2004) in the form of a case study revealed the positive impacts that ICT usage had on social Studies. She asked the students involved to design a political campaign advert through the Microsoft PowerPoint platform. She discovered that **the self-efficacy and confidence of students were enhanced when using PowerPoint to complete the task. Furthermore, she noticed that students learned from each other** (T. Heafner, 2004).

Eighth Finding: Brad M. Maguth (2012) explored students' usage of technology and how it improved citizenship engagement in a time of globalization. This research was in the

form of a qualitative study that lasted five months and explored technology use in social studies classes at twelve high schools throughout the Mid-Western USA. Student Use of Technology for Engaged Citizenship in A Global Age. Aspects explored in this research were: global events, issues, and perspectives, communication and collaboration through global and the addressing of global issues with the intent to find global solutions. Data was gathered in a number of ways, including document analysis, semi-structured student interviews and online-threaded discussions. Findings were subsequently triangulated findings, and it was revealed that **there was a strong correlation between participants' technology usage and their citizenship perspectives in a global age**. Students reported using technology to find out international news and information, to become part of global networks which allowed to the interact with global communities, and to create digital content that could be accessed internationally (Maguth, 2012).

Ninth Finding: In the research titled "Wikis and Constructivism in Secondary Social Studies: Fostering a Deeper Understanding" (carried out by Tina L. Heafner& Adam M. Friedman, 2008) the impacts of student-generated wikis were assessed in a number of ways, using measures of student involvement, cognitive advantages and benefits to students' learning. It was revealed that **the creation of wikis caused a pedagogical transformation from the more conventional teacher-led educational styles towards more student-lead, constructivist learning approaches with enhanced self-efficacy and motivation amongst students**. What's more, interviews conducted eight months after the start of the project revealed that **there was a higher level of information retention and understanding in those who had designed wikis than their counterparts who were taught the same content under a teacher-orientated approach**. In the long-term, the wikis had a positive effect on students', and by connecting them to the content, they were able to obtain a more in-depth insight and comprehension of the information by visualizing the chronology of events, in addition to cause and effect relationships (T. L. Heafner & Friedman, 2008).

Tenth Finding: A case study carried out by Ehman et al (1992) explored eight social studies classrooms incorporating computer databases for teachers to enhance problem-solving skills. A number of factors were found to impact the effectiveness of problem-solving processes. **Ability to use computers effectively was found to be related to the use of computers within the social studies curriculum, effective time use and instructional structuring involving modelling steps and processes**. Furthermore, computers were used for student activities, to present debriefs about the lesson and to share lesson outcomes (p.

196). Previous exposure to relevant information and computer-use skills, cooperative small-group learning skills and the ability to use of simplified commercial databases effectively were also found to be important factors in determining the effectiveness of computer use for performance outcomes. The research findings were indicated that the benefits of using databases to encourage higher-order thinking (Ehman & Glenn, 1991).

Eleventh Finding: The effectiveness of using online database searching to enhance critical thought was also investigated by Markowitz and Crane (1993). They carried out a case study to evaluate the adoption of technology in fourth-grade social studies, as well as a university methodology course in elementary school. Pre-school teachers reported a belief that **online searching is important for elementary students since they perceive it to enhance motivation and enthusiasm**. It appeared that such technology can enhance students' access to information, and can improve students' written abilities if they provide instant feedback.

Twelve Finding: Results found by Davis (1995) for social studies students in ninth grade classes indicated that computer usage in experimental classes in the form of a timeline database and a concept-mapping program were beneficial. **As opposed to the control groups, those in the experimental classes had better academic performance, more motivation, higher capacity for self-directed thoughts and activities, better meaning-construction skills, analytical analysis, and peer interaction skills**. Furthermore, those in the latter group showed more desired attitudes regarding themselves, the content and the teaching design (Davis, 1995).

CONCLUSION AND RECOMMENDATIONS

Although the teachers tend to use the technologies in the classroom, the incorporate these technologies to social studies education is still restricted, as well as, their will to make it as main learning tools that could be integrated into s a teaching and learning strategies (Ross, 1991). The stumbling of technologies used in education is related to the time that the educators need it to reorganize their educational priorities to involve this technology into the educational system. Many educational studies reported a lot of problems connected to the technical matters, put less emphasis on changing the existing teaching methods lead to organize the structural learning environment.

In addition, according to the literature, the use of technologies in social studies provide the opportunity to the students to enhance their critical thinking, the skills of the issues-solving and give them courage to make decisions related to public matter ((M. J. Berson, 1996b; Boyer & Semrau, 1995; Peter E Doolittle & Hicks, 2003; Rice & Wilson, 1999; Thomas, 2003). Also, the theoretical background emphasis that employment of the technologies enhances the constructivist learning approach in the social studies classroom, to aid the students with the opportunity to build their knowledge in a meaningful way through teamwork, motivations and participations (Jonassen, Howland, Moore, & Marra, 2003). Yet, it still remains a fact that for the usefulness of knowledge construction, employment of educational technology into social science education in specifically required to be grounded into constructivist learning values.

Employment of educational technology must be accompanied by an organized and systematic process of teacher training programs and the provision of technical assistance.

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