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Connectivism And Constructivism Approaches To Social Learning Theory

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Abstract

The purpose of this paper is to discuss Social learning theory (SLT) from the aspects of connectivism and constructivism, together with its pedagogical implications. The discussion intends to provide insight into the development of teaching strategies that adapt to transformation in the way students learn, communicate, and construct new knowledge. The paper, hence, covers the brief overview of both approaches underpinning the Social Learning Theory. The writing is anticipated to be helpful for future research which empirically focus on connectivism and constructivism approaches. As efforts are made in line with the aspirations of increasing engagement, improving quality, and achieving beneficial interpersonal results, collective learning, as propagated by SLT, is believed to be superior to individualistic learning.

Keywords: Social Learning Theory; Connectivism; Constructivism; Education.

INTRODUCTION

Social learning research has increased dramatically in recent years, thanks in part to fruitful encounters between conceptual and empirical strategies. This is combined with a unique emphasis on learning techniques that place the learning process within an approach of decision-making analysis. Recognizing why, when, and how humans learn from others is a major

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challenge, but it is crucial in many different fields of study (Boyd et al., 2016). The constructivist model suggests that understanding can only occur within the human brain. It does not have to correspond to any fact. Students would be constantly attempting to construct their possible mental aspect of the entire globe based on their perceptions of it. Students will keep updating their thought processes to represent new knowledge as they recognize each novel experience, and will thus build their perception of reality.

This is a fundamental but inadequate prerequisite for knowledge. People must understand what they will be studying, what skills they are acquiring, and how they may showcase how much they have understood. As a result, several scholars are skeptical about the true potential of informal learning activities (Selwyn, 2010). The acquisition of structured and unstructured education aspects is developed in response to the need to change formal training. It is even more important in light of the ever-changing environment of educational technological innovations (Kamenetz, 2010; Sangrà & Wheeler, 2013) even though there have been claims arguing such usage of digital knowledge and social networking does not always translate into knowledge (Williams et al., 2011). To illustrate, Wiley and Hilton (2009) state that individuals may be browsing through fascinating and meaningful learning content, but the resources they are utilizing to study may not provide them with the specific information they want. Top institutions like MIT and Harvard which have collaboratively worked with Coursera, a service that supplies a forum for MOOCs to be provided to everyone at anyplace using a conventional method (such as Udacity and Udemy) have even founded new organizations to provide lessons (Bates, 2012). However, despite being regarded the buzzword in 2012, MOOC programs have become a serious problem for most college students in the United States and in other parts of the world, for they are unsure how to respond meaningfully to those resources (Daniel, 2012). Therefore, it is vital for the management officers, teachers, and students to know the concepts of connectivism and constructivism in social learning. Addressing such matter, this paper looks into Social Learning Theory in terms of the two widely recognized research approaches-connectivism and constructivism. The paper provides a brief overview of both approaches prior to the theoretical insights of Social Learning Theory with primary and higher education in mind. The remaining parts of the paper cover the authors' discussion and conclusion.

OVERVIEW OF CONNECTIVISM

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Modern-day learning is taking place via network connections as people exchange respective skills, information, viewpoints, experience, and views in digital or online learning settings (Dunaway, 2011; Siemens, 2008). Because knowledge is continually evolving, its usefulness and correctness may vary significantly when new contributions to a field are discovered. As a result, one's grasp of a matter, as well as student ability to learn about the subject at hand, will vary from time to time. Connectivism emphasizes two crucial abilities that help to learn: the capacity to search for existing knowledge and the capacity to eliminate alternative and superfluous knowledge. The process of learning is continuous in the sense that individuals will access the network to exchange and discover new knowledge, subsequently adjust existing views based on new understanding, and then reconnect to a community to communicate such experiences and discover new knowledge again. Essentially it is, the ability to understand is much more important than what is known. The capacity to make judgments based on learned knowledge is seen as essential to the education process (Siemens, 2008). Driscoll's (2005) research was used to classify knowledge among three main philosophical frames notably objectivism, pragmatism, and interpretivism. Objectivism holds that reality exists outside of the mind and that learning and perception are gained via experience.

Pragmatists view learning as the result of a bargain involving thought and practice (Siemens, 2008). The Internet has been reshaped into a huge blended learning environment, with knowledge storage tanks such as online virtual classrooms, online forums and virtual societies to successfully execute, replicate, communicate, and convey content in to the grip of students and teachers (Kropf, 2013). More significantly, the Internet has become a central focus of connectivism, which is potentially dynamic in innovative educational philosophy. Adelstein (2013) states that students nowadays are 'do-it-yourself' thinkers. Connectivism sees learning as an unstructured chance and it converts individual students into 'networks' themselves, equally skilled in exchanging their skills and experience with other people after gaining knowledge from a sequence of nodes (Albert & Steve, 2013). Individuals may alter or reform their behavior in response to stimuli such as incentives and penalties. Online communication platforms can turn students into someone who can manage their schedule and arrange their duties appropriately amidst the everyday turmoil of plentiful data (Couros, 2009; Garcia et al., 2012).

OVERVIEW OF CONSTRUCTIVISM

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According to the idea of constructivism, people learn through observation and research. By engaging in life experiences and observing the results, people construct their understanding and knowledge of the world. New information must be compared to our prior knowledge and opinions, which may demand us to alter our belief systems or reject and consider the new information as insignificant. In any case, we are active participants in the creation of our knowledge and experience. Ask questions, investigate and evaluate what we already know to achieve this. The constructive approach of classroom learning can refer to a variety of different teaching practices (Bereiter, 1994; Tam, 2000). According to Driscoll (2005), the constructivist model suggests that understanding can only occur within the human brain. It does not have to correspond to any fact. Students would be constantly attempting to construct their possible mental aspect of the entire globe based on their perceptions of it. Students will keep updating their thought processes to represent new knowledge as they recognize each novel experience, and will thus build their perception of reality (Spector, 2001). The second idea is that learning is an active process instead of a passive one. Students must encounter their comprehension in view about what they experience in the new setting. If what students experience contradicts their existing knowledge, their insight can shift to match the new information. Students stay operational during this phase, applying existing knowledge, noting essential aspects in novel situations, judging the coherence of previous and arising understanding, and modifying required knowledge based on that judgment (Gopnik & Wellman, 2012; Moons & De Backer, 2013; Mvududu, 2005; Naylor & Keogh, 1999; Phillips, 1995).

SOCIAL LEARNING THEORY

Social Learning Theory asserts that social behavior is learned by observing the behaviors of others. According to Bandura (1977), the theory of social learning suggests that attitudes and behavior of others affect folk's behavior and attitudes. In other words, by perceiving how someone else complies, people learn appropriate and regulatory behavior. In addition, such an apprentice allows people to be self-assured and clarifies one‘s behavioral and inspirational trends (Walumbwa et al., 2011). Ideas of Social Learning Theory were combined by Burgess and Akers (1996) from adaptive behavioral psychology with Sutherland's (1947) nine core values of deviant behavior. Nowadays, this theory is widely accepted as one of the most influential models of deviant behavior.

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Humans have spread throughout the world over the past 600 centuries and today inhabit a larger area than most other mammalian creatures. Our capacity to respond to such a wide variety of habitats is frequently clarified in association with cognitive potential. Humans have higher level of testosterone and much more processing capacity than most species, which help them to survive in a variety of environments. We attribute our achievements to our innate desire to learn from others. This ability allows humans to increasingly absorb knowledge over centuries and evolve well-adapted tools, values, and behaviors that would be too difficult for ourselves to discover throughout our lifespan (Heyes, 2012). Why do humans adapt to new environments much better than other animals? Humans have larger brains and more processing capacity than most species, which help us to respond to a greater variety of conditions. A sequence of articles contains one of the clearest assertions of this theory. Some species are restricted to 'devoted knowledge', or domain-specific learning and decision-making processes adapted to specific conditions. Human beings, on the other hand, have acquired 'improvisatory abilities', a set of fundamentally adaptable intellectual capabilities that in a variety of settings, our species can develop locally adaptive actions (Ray & Heyes, 2011).

THEORETICAL INSIGHT

` A rich and multidisciplinary conceptual framework supports research on social learning strategies with active negotiations, such as the significance of compliance, if a copy decision would rely more on the materials or the social environment, or whether or under what situations, social learning may lead to the transfer of false information (Biele et al., 2009; Rendell et al., 2010; Whitehead & Richerson, 2009). Rogers' (1988) paradox, which is a simple hypothetical test that became the most constructive concept regarding the development of social learning, was an essential starting point. Alan Rogers (1988), an anthropologist, developed a simple numerical framework to examine how and when to learn better in a dynamic world. Remarkably, the assessment concluded that social learning does not boost average population wellness since its effectiveness is extremely frequency-dependent. Social learners rely heavily on asocial learners to get their information, even though they can avoid the costs of asocial learning by using duplication at lower frequencies. Nevertheless, as the rate of duplication increases, this is unfavorable because social learners tend to copy other copyists.

There is a significant distinction explained by Diefendorff and Lord (2008) between systemic and content philosophies of self-regulation. Without discussing the substance of what

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is controlled, systemic theories explain self-regulatory structures and their interdependencies across the period. Objectives, target power structures, guidance, and disparity elimination are several instances of self-regulatory structures correlated with systemic theories. Theories such as social learning and control can be considered structural belief systems, according to this distinction (Carver & Scheier, 1998). Self-regulation content studies emphasized the kinds of behaviors people engage in as well as how the essence of one's interests influences self-regulation. Whereas, Goal Alignment Theory, according to Diefendorff and Lord (2008), is a self-regulation content theory because it discusses the types of perceptions that individuals have in achievement situations and how certain perceptions influence self-regulation (Dweck, 1986). More research combining structural and content perspectives of self-regulation is required, by these researchers, to fully understand their accumulated influence on the achievement and self-reactions. Trait goal orientations can have a greater impact on self-regulation through activities and situations than aim alignment settings. This is because trait target alignment decreases an individual's susceptibility to contextual primes that contradict their trait preferences, making the contextual situation less powerful as a predictor of conditional achievement. While reinforcement is fundamental to the relational mechanism of Social Learning Theory, some researchers argue that evaluations of the theory often concentrate on the presumed causes or results of stimulus instead of reinforcement itself (Rebellon, 2006). Associations between peer relationships and involvement in deviance, for instance, between cognitive behaviors and involvement in immoral behavior, have been evaluated and recorded as proofs of previous reinforcement and, as a result, seen as justification for learning theory.

Much is discovered about the adaptation effects of social learning, but less is understood about the cognitive systems that allow it. Often in the instance of imitating, a kind of social learning behavior is researched in both cognitive and social psychology, there is very little cross-pollination between both the two fields. Two long-held beliefs have separated social learning from cognitive psychology: it is dependent on a collection of particular components adjustments for social life; and that such learning processes are essentially different from the processes governing individual social cognition (Heyes, 2012).

CULTURAL EVOLUTION AND PRIMARY EDUCATION

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To depict cultural development, a variety of models have been developed. The underlying premise is that non-genetic natural changes have produced, extended, and polished most of the experience and abilities utilized by individuals all over the globe every day. Such mechanisms are highly dynamic since they result in change via genetic variation inefficiency. Nevertheless, instead of biological factors, transmission happens via social learning, and viability is measured by the number of people or groups that acquire a characteristic from social learning (Heyes, 2015). In the sense of different cultural dilemmas, the concept of social learning is often applied. It highlights the importance of combining insights from diverse fields to solve serious issues. Social learning takes place whenever people from different backgrounds interactively exchange information to generate new understanding and beliefs, which also serve as the foundation for effective participation (Scholz et al., 2013). In relation with that, whenever the level of their social learning changes with the settings under which a pattern is viewed, students are said to be engaged in particular learning, targeted simulation, or selective belief, or to be utilizing social learning techniques. To further illustrate, when students replicate – the situations wherein they are likely to imitate than to conduct clearly stated actions or to introduce a different behavior – factors like age and social groups play crucial roles. These factors are deemed essential in new research directions investigating the impacts or roles of social learning. This is being utilized, for instance, to explore the impact toward which copying helps to build and sustain social relationships, and also to foster the growth of technical knowledge (Over & Carpenter, 2013). However, asocial learning is usually compared with learning that is affected by observations or contact with the other human or even its results. For instance, trial and error is a relatively inexpensive method of collecting important knowledge. However, there are risks associated with duplicating; the evidence received may be obsolete, deceptive, or unsuitable (Giraldeau et al., 2002). Currently, research results are generally stated in terminologies that allow both practical and mechanical analyses. With numerous examples, children practically do not choose to acquire from anyone they see as untrustworthy (Poulin-Dubois et al., 2011).

Some of the findings included here reflect that these next steps along the way of determining the extent to which different types of especially epistemological awareness of potential students' preferential social learning. The speech act itself carries certain epistemic features (Chen & Waxman, 2013). Some of these are innate in the origin (Kushnir et al., 2013), some are signaled by the comment's relationship with the globe (Gillis & Nilsen, 2013), and

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some others are inherent in our used dialect (Gelman et al., 2013). Some of these studies are novel discoveries of children's use of earlier unexplored sources of information, like text (Robinson et al., 2013), body language standard expressions (Fusaro & Harris, 2013) and proper language functions to influence older children's ability to learn (Sobel & Macris, 2013).

HIGHER EDUCATION SHIFT

Several research organizations, like the Pew Research Center, were taken aback by the change of institutions of higher education from principal suppliers of prestigious conventional learning to organizers of unstructured and online learning settings (Goldie, 2016). Students in higher education are happy with their online lessons, viewing distance learning as comparable to traditional learning (Allen et al., 2011). Higher education is a lively, complicated structure contained in a flexible, complicated super system - modern civilization. New technologies have fundamentally altered this super system in six major ways (see Table 1) that higher education must identify and comprehend (Buckingham et al., 2012; Wiley & Hilton, 2009).

Table 1. super system in six major ways

1. From Analog-to- Digital
The predominant medium for capturing and disseminating information has shifted from analog - to - digital. Since MP3s and DVDs seem to be the favored methods for transferring entertainment, it is becoming increasingly difficult to access tracks recorded on record or films stored on VHS cassettes. Print media are rapidly losing momentum to electronic, online media dissemination forms, and a few have gone bankrupt.
2. From Tethered to Mobile
Actions that have traditionally linked an individual to a certain location. Cell devices enable us to communicate with coworkers, friends, and relatives without even being bound to a block by a telephone cord. Wi-Fi technologies enable everyone to access the Internet, social media, and instant messaging without even being attached to a network connection.
3. From Isolated to Connected
Although IP and many other standards used to enable machines to create simple connections to each other, online services and interfaces now allow for even more complex sorts of information exchange. Whereas faxes and postcards formerly linked individuals autonomously, social networking sites (such as Facebook), telecommunication services (such as Skype), messaging, and cell devices increasingly link users in real time.
4. From Standard to Personal
Practically, in every aspect of life, technology allows "mass customization" of products and services. If cellphones ring in a public place, each sounds a distinctive ring tone chosen by the user. Users can personalize the color scheme and features on automobiles people want to buy using user interfaces. For instance:

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Amazon.com, a retailer having possibly millions of users, provides personalized customized suggestions to its consumers.
5. From Consumers to Creators The equipment and perhaps other resources required to create and transmit diverse cultural artifacts such as literature, films, and songs were formerly an exclusive domain of the affluent. An economic hurdle to generating and disseminating cultural identities has nearly vanished. Everyone can produce a book and compete with publishers, thanks to computer programs and print-on-demand publication solutions. Anybody can become a journalist and a challenge to media, thanks to free blogging applications and digital cameras frequently accessible in cellphones. With the availability of low-cost video recording devices hosting services such as YouTube, anybody can release films and compete with major studios.
6. From Closed to Open The fundamentals of rapid knowledge dissemination, which have almost eliminated each unit operating costs, have permitted extensive, free distribution on a level which has never been seen before. The realm of free software offers consumers entirely free and available alternatives to the Windows version, Microsoft Word, Photoshop, SPSS, and other costly software applications.

SOCIAL LEARNING THEORY - ACADEMIC PERSPECTIVE

A learning theory is described as a collection of constructs that correlates observed improvement in behaviors with what has been assumed to cause such improvements. It discusses when and how learning takes place. Learning concepts are made up of internal or external factors that may be used to trigger learning. Learning researchers may offer detailed interpretations of how students learn when they track these factors over time (Driscoll, 2005). The fundamental theory is that students learn more easily as they participate in deliberately chosen group for problem solving exercises while being closely supervised by teachers (Parker, 1979). The most critical aspect of social learning is collaboration. Although instructors show support in encouraging group discussions, students should be allowed to choose what they want or need to discover in order to gain better knowledge of the matter at hand on their own. Many outcomes indicate that collective learning is much more successful than individualistic learning in terms of increasing engagement, improving quality, and achieving beneficial interpersonal results (Snowman et al., 2009). Vygotsky, a social learning researcher, observed that social relationships with classmates, teachers, and families aid in learning and cognitive growth (King et al., 2009). Apart from social learning researchers, who study diverse settings marked by variation within and through cultural networks, academic psychologists often study homogeneous populations in laboratory or learning environments. When talking about 'social

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learning', cognitive scholars mean anything from instructor-student conversations to social learning (Salomon & Perkins, 1998). While diverse viewpoints on the collective learning experience exist within the educational science, they both agree that it involves an interpretive mechanism among students in the processes of exchanging underlying experiences and creating common attributes (Bossche et al., 2011). According to (Tenenbaum et al., 2001), this includes grade point average, comprehension evaluations as well as learning metrics. Other measures like dart throwing accuracy are also allowed. Total performance target orientation was not linked to job performance. The correlation between performance approach target alignment and outcome was found to be poor to negligible in the outcome. Finally, the average relationship between performance avoidance, target orientation and performance was weak and negative. Self-efficacy and self-reactions have a variety of subgroups in which work division accounted for a significant proportion of variance among self-regulation factors. Nevertheless, such examples contain a small number of trails necessitating restraint in analysis (Cellar et al., 2011).

CONNECTIVISM'S IMPLICATIONS FOR TEACHING AND LEARNING

1. Institutions involve in the provision of a supportive infrastructure as well as in the review process;
2. The importance of facilitators (or teachers) cannot be overstated. It is essential to understand employee attitudes toward new technology adoption decision because they are the ones who contribute to effective maintenance and sustainability;
3. The learning design perception adds another dimension for the incorporation of an online design and application, making it more suitable for the layout of platform teaching methods;
4. When a proper training is provided in at least one specific situation; the implications for practical application could be clearly extended.

CONSTRUCTIVISM'S IMPLICATIONS FOR TEACHING AND LEARNING

1. Inspire and recognize students' interest and effort;
2. Use of a number of different tools, such as source data, original research, and engaging materials, and motivate students to use it;

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3. Make an inquiry regarding students' conceptions of ideas prior to actual exchange of knowledge (of related constructs);
4. Motivate students to respond in conversation with the instructor and with classmates;
5. Empower and inspire students to communicate with the instructor and with others;
6. Encourage students to participate in perceptions that demonstrate inconsistencies to their initial conceptions, and then generate conversation.

DISCUSSION

A teacher's role is not only to define, generate, or convey content, but also to assist children in learning pathways and trying to connect with existing and new sources of information (Anderson & Dron, 2011). Theories of social learning, such as connectivism, shed light on teachers' responsibilities in these socially networked environments. Kop and Hill (2008) suggest integrating contextual learning with social media platforms by applying the connectivism principle. In the age of social media, education is no longer a private, individualistic activity. Scholars, on the other hand, use Wikipedia, Google Scholar and Academia to gather information. It is believed that individuals learn from facilitators like family, teachers and friends as well as from computers (Wertsch, 2008). Dweck's (1986) theory of underlying conceptions of intelligence has also been widely developed to understand student learning techniques and performance, and model-based treatments are being utilized to enhance student educational achievement. For instance, in an organic chemistry class, researchers discover that personal growth, as shown by an attitude toward educational goals, was connected to better learning techniques and higher marks. Students with a rigid attitude were unable to recoup from a negative result (Richardson et al., 2020). Banks et al. (2011) investigated education in structured and unstructured contexts. Their reports suggest that structured schooling accounts for just a limited portion of a person's lifetime learning process: From first to 12th grade, structured learning accounts for approximately 19 percent of the student's time. It drops to 8% for undergraduate and 5% for graduate studies. Since learning can occur anywhere and at any time, informal learning becomes increasingly important as students move from high school to college and graduate school. Students gain information as a result of connections with linked peers. Conversations encourage students to strengthen their bonds with information and social relationships. Social interactions and channels are altering how we think about information and knowledge sharing, as well as how we coordinate our learning and

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thoughts. Canning et al. (2019) claim it would be next to no investment for teachers to know how their thinking is expected to influence students' motivation and productivity. We believe that motivating teaching staff to track encouragement and critical awareness about self-reflection will have a greater influence.

CONCLUSION

This article aims to discuss Social Learning Theory, particularly in the aspects of connectivism and constructivism. The key concepts of both approaches align remarkably well in primary, secondary and higher education. There exists a significant recognition, as illustrated by learning approaches such as connectivism and constructivism, that there is much more to educational contexts, mathematical skills, or historiography than trying to master an organized body of subject matter. Enculturation is required if a student is to ultimately become an analyst, a member of the group in a profession, instead of someone watching the subjects completely from the outside. Building is a theory which affirms that learning is a process for the student. According to this theory, people will try and make sense of all information that they consider, and as a result, every other person will formulate one's purpose from such details. Constructivism approach is one of the most important concepts in academic achievement. It has far-reaching significance because of how educators teach and learn to educate. If we are to achieve success in reshaping outcomes for all students, we must closely work with them. The emphasis on student-focused learning could be constructivism's greatest significant contribution. Individuals possess unique understanding, perspective, and aspirations to the educational process. As per connectivism and constructivist learning approaches, those distinctive aspects link in constructing the students' knowledge. Teachers and students both contribute to the facilitation and creation of knowledge. Students are expected to challenge one another's comprehension and clarify one's points of view. These possibilities aid in the transfer of knowledge from the authority to the students. Furthermore, constructivism promotes productive instead of rote learning, as well as the use of group-based collaborative learning, which are mostly taking place via communication technology.

FUTURE DIRECTIONS

Evaluation of the significance of different activities and interactions in the process of social learning in future studies would open the path for a quite well method of framework

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participation in which coordinators, for example, identify when antithetic and synthetic interactions are out of balance and use this information to advise the initiative's supervisor or participants on how to conduct the discussions more constructively (Beers et al., 2016). Education and research methods are crucial because they highlight the role of helping students by assisting students in adopting more effective study methods. The fact that students' social identity and perspectives of the teaching program were not effectively related to students' academic performance is not remarkable, and it implies that investigating the indirect impact of these variables, as well as potentially everyone else, on academic performance might be a worthwhile path to follow in future studies. Moreover, the question whether social media learning is better than conventional learning is another crucial matter to address by future researchers, for it is reasonable to say that publicly available social media platforms give students access to more experiences and knowledge than they might receive in a conventional restricted setting.

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