International Journal of Religion
2024
Volume: 5| Number 11 | pp. 6359 – 6366
ISSN: 2633-352X (Print) | ISSN: 2633-3538 (Online)
ijor.co.uk
DOI: https://doi.org/10.61707/p0q68h69

Application of Constructivism through Interactive Learning Techniques

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Abstract

The aim of this paper is to reflect over application of constructivism through different techniques in order to improve the language skills of students in Kosovo. Today's curriculum in Kosovo and the publication of new texts are designed with the aim of having a constructivist approach. Consequently, teaching is also expected to follow the same line. According to the constructivist theory, individuals construct, namely they create or ideate their own understanding or knowledge, by relating prior knowledge, and modifying it into events, activities and other general situations, which they encounter. In this way, they expand and enrich their knowledge enabling themselves to deal with more complicated situations. The research part of this paper includes the observation methodology, which has been applied during 64 classes in 12 schools in the country.

Keywords: *Constructivism, Technique, Curriculum, Learning*

INTRODUCTION

Every education theory has an initial reference related to a background, which has led to today's new teaching reality accompanied by pros and cons related to global and glocal education issues.
In addressing current education developments, there are different thematic education theories and policies, which entail miscellaneous opinions on implementation of teaching. Authors Halvor Hoveid &Marit Honerød Hoveid describe teaching from perspectives of their experience and call teaching an action within the societal institution of education through the actions of teachers to formal education from kindergarten to higher education (2019). Others think education is cosmopolitan, as with the development of global processes, especially global communications and social media, the notion of cosmopolitanism has become more widespread and somewhat of a "buzzword." (Egéa, 2016). In light of that, this research endeavours to touch upon main theories, especially over constructivism, both as a philosophy and a practice to reflect not only upon its cognitive and evaluation scope (to know, to define, to evaluate, to reflect and valididate) but also to entail the practical experimental side on the current situation in the actual schooling system in Kosovo, which is trying to take the shape of an inclusive teaching philosophy following transformations of the education system after the war of 1998-1999 in the country.

Constructivism

Education was and continuous to be one of the central concerns of educators and policymakers throughout the globe. Ancient scholars, especially Greek education philosophy and practice carries on as one of the most important of all earlier contributions to our contemporary education, as it is accepted that from Greek thought and practice that the modern conception of the school as the constructive instrument of the state arose (Arthur, 2020). Relatedly, Democritus, Xenophanes, Alcameon, etc., believed that the world that a person experience cannot be compared with the world that is independent from him/her, because knowledge is impossible to be a frozen reflection of reality. John Dewey and Edward Lee Thorndike as two most prestigious educators with their different thoughts on education and teaching (Thorndikes' mechanc view and Dewety's adaption proces) influenced the theory of education, as Thorndike is often portrayed as a technocratic proto-behaviorist, in favor of atomized habit-focused education, believed to advocate standardization, accurate psychometrics, and scientific administration; at worst, he is portrayed as furthering the twin evils of rote memorization and eugenics. On the other hand, the tradition fostered by Dewey is where many teachers' hearts lie as he is seen as promoting a fundamentally social, discovery-based, hands-on construction of knowledge through hypothesis testing and

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creativity Dewey, in his classic Democracy and Education, spoke about the ways of educational bureaucracies can deaden the excitement of creative learning (Kritt, 2018:21). One cannot think of constructivist teaching, however, as a monolithic, agreed-upon concept but rather that constructivism is a learning or meaning-making theory, suggesting that individuals create their own new understandings, based upon the interaction of what they already know and believe, and the phenomena or ideas with which they come into contact, thsu making constructivism a descriptive theory of learning (this is the way people learn or develop); it is not a prescriptive theory of learning (this is the way people should learn) (Richardson, 2005:14).

Knowledge, according to the constructivist hypothesis, is not thought of as a received, static entity that is separate from the individual. Neither is it separable from the activities within which knowledge was constructed, nor from the community of people with whom one communicates about the ideas; it is brought to life through the interaction, which is realized by the subject using previous knowledge and the undertaken actions.

According to constructivist theory, individuals construct, that is, create or construct their own understanding or knowledge, by relating prior knowledge, that is, what they already know, and modifying it in events, activities, generally with situations with which they face. In this way, their knowledge is expanded and enriched, enabling them to deal with more and more complicated situations. In other words, this theory supports the idea that people construct knowledge about the world by experiencing things and reflecting on their actions and outcomes.

The theory of constructivism has the opposite role to that of behaviourism Constructivism, implies that students must build their understanding and knowledge by reflecting on certain experiences, and understanding a certain thing is achieved by assimilating and accommodating through their experience, and to this end, constructivist teachers encourage and guide students to value activities that help them gain meaning. On the other hand, behaviourism is a theory that is based on observable changes in behaviour, where the central focus is on the role of the teacher. The student during the teaching process is passive; h/she simply absorbs information from the teacher, rather than constructs it him/herself.

The two main constructivist perspectives were created by Jean Piaget and Lev Vygotsky. Piagetian constructivism is aligned with an emphasis on education for individual cognitive development while forms of Vygotskian constructivism are aligned with an emphasis on education for social transformation (ibid, p.26).

Individual Constructivism

Individual constructivism is associated with the name of the Swiss psychologist Jean Piaget. Known as a cognitivist psychologist because of his interest in psychology and sociology, he posed the question of how people construct their knowledge and what are aims of education. His famous view that the main purpose of education was that children should become self-determined personalities and capable of cooperation, lays bases for today's methodologies on students' centered approaches. The early stages of Piaget's involvement with sociology were dominated by the question of the reality of society, in connection with the general problems of realism and nominalism. What he suggested was that societies do not exist as beings, nor do individuals exist in isolation, and the task of psychology is to examine these relationships from the inside, and sociology must examine these relationships from the outside (Kohler, 2014:110). Piaget's great epistemological problem was, in fact, that his arguments were realistic and constructivist at the same time. He believed that objective reality could be approached empirically, although reality is only a construction (ibid, p.227) Piaget adapted the structuralism framework that knowledge is not transmitted from someone who knows to someone who does not know. It is built and structured by the individual through the actions that one performs with the objects. These actions are internal and form the schemas. All are involved in the brain, are organized into functional structures and allow the subject to respond in a certain way to a situation (adaptation). The concepts: acquisition, adaptation and balance that were used to explain the adaptation process, give his theory a biological basis: it is conceived as a process of self-regulation of cognitive structures (Kamareta, 2014:68). Man learns by understanding the world around through existing concepts. During the process of the whole world, it changes

the old concepts, in this way, the skills are cultivated and expanded to find even more information that will be available in the future (Temple et al. 2005:1).

Piaget believed that language is a representational system, which does not advance beyond egocentric speech until it enters the beginning of concrete operations, around the age of seven (Singer, & Revenson, 1996:58-60). He claimed that children develop skills according to a predetermined framework.

Acquisition and adaptation are cognitive functions. To learn means to acquire and adapt. The student has mastered the lesson well, when he masters the concept, meaning that he is able to use it in a new situation and can use it as the new tool to think. Consequently, these acquisitions are transformed by new knowledge and its conversion is done through what the person knows.

"The new answer is the external expression of a complex process that Piaget called "adaptation" and considers the form of intellectuals" (Kamareta, 2014:68).

Adaptation is about modifying or "repairing" old knowledge with new knowledge. Thus, through acquisition and adaptation, the learner can change his schemes of action and can also create new models, which enable him to solve the faced problem. In this way the learner has the predispositions to have a new mental structure, and thus can find the equilibrium. Piaget relates the respective explanation with a description that this is vis-à-vis an organism's attempt to resolve anomalies and restore equilibrium when such an organism becomes constructivist; it seeks to increase adaptation by reworking or reorganizing meaning bearing (cognitive or affective) inner processes to resolve anomalies, eliminate resistances, and simplify processing—the dynamics of optimizing equilibration (equilibration majorante) (Martí, E., Rodríguez C., 2012:55).

Piaget supported his position on the active participation of students as a main path for the scientific approach in school. His experiments were also supported by Montessori, Deklori, Klaparede (Munari, 2008:342-352). According to Piaget (1950) "A learned truth is only a half-truth; all truth is recovered, reconstructed and rediscovered by the student himself". According to him, students do not learn only by watching the teacher conduct the experiment, or by doing previously organized exercises; they learn through a process of trial and error, working actively and independently, i.e. without obligation and with plenty of time at their disposa"l.

The facts and theories of genetic construction and in particular Piaget's description of the stages of development of intelligence and scientific knowledge were subject to very different readings depending on the type of conception, accepted or not, that each reader had by culture, which is undeniably the ultimate goal of any educational endeavour. Consequently, two different tendencies can be distinguished, referring to Piagetian genetic constructivism, or more precisely, his theory of stages. One that sees culture as a kind of structure to be built step by step, and the other, when culture is treated as a kind of combination endowed with a certain flexibility and capacity for self-organization, while the construction or reconstruction of which can be encouraged, simplified, but not fully controlled. These two interpretations are located at different levels; one more specifically at the psychological level and the other more at the epistemological level, becoming completely opposite to each other in the teaching practice (Munari, 2008:353).

Social Constructivism

Social constructivist learning theory is a subtheory which emphasises the role of others and all forms of social interaction in the process of constructing knowledge and understanding (Pritchard A.,Woollard J., 2010:21). In most cases, the objects of knowledge are characterized by a social nature, such as language, history, etc., where interaction requires the participation of others in a recreational or educational environment, society or teachers, etc. According to this theory, thoughts and knowledge are products of society. Despite the fact that they are personalized, they always remain marked by society, according to which, words and symbols are created by agreements within society. In general, there are three aspects of social constructivist thinking, namely: reality, knowledge and learning. The theory connects the importance of the social interaction assisted by the essential medium and assumptions of language (ibid, p.22).

Vygotsky - for the Theory of Cognition

Vygotsky's theory of social development, particularly his work on learning in social contexts, has triggered attention of many authors in the field of education as he considered social interaction as a fundamental aspect of successful cognitive and intellectual growth, by giving central attention to dialogue, interpsychological, intrapsychological and s the idea that the potential for cognitive development and learning is dependent upon transition across the ZPD (ibid, p. 27)

The development of a person cannot be reduced only to the changes that occur within him, which is also an allomorphic development, capable of taking two different forms, the creation of external aids as such, and the creation of external means that can be used to create internal (psychological) changes (Ivič, 2008:364). Therefore, in addition to the tools that people have invented throughout history and they use to exercise control over objects (external reality), there is also another series of tools, such as spoken and written language, rituals, patterns of presented behaviour in works of art, systems of scientific concepts, techniques that aid memory or thinking, etc., whileself-directed, they can be used by people to control, master and develop their abilities.

The "Moxart of psychology", as the philosopher Tulmin called the psychologist Vygotsky, built one of the most promising theories for psychology. He became interested in and dealt with the problems of child development and the construction of thought. According to him, since the child is a social being, the development of thought, language and higher order psychic functions are the product of this social circle. These findings distinguished him from Piaget's constructivism which referred to the psychological and genetic aspects of the origin of learning, excluding the social dimension. Pritchard (2010:9) points out that even representatives of social constructivism agree with radical constructivists that reality is constructed by the individual, but for social constructivists, such a constructed product cannot be built without being realized once in the social aspect. Knowledge and learning are a social process. Meaning and understanding are realized because of an agreement between social partners, enabled by social interaction and aided by the medium and postulation of language.

The central theme in Vygotsky's work, "Thought and Language", is the relationship between language and thought during ontogenesis. His research shows that although the capacity to learn language is inherited, it is insufficient. According to him, help from the social environment is also necessary in the form of a simple learning process, where the social interaction includes the adult and the child, who have mastered the sign systems, known as language and social codes. The help of this environment (the teaching process) is nevertheless constructive; it is more than a simple incentive mechanism, as it is for instinct or a simple incentive that accelerates the development of forms of behaviour that would have emerged anyway. Hence, according to him, learning accelerates development. During this preverbal cooperation, the adult presents language, which, being built on preverbal communication, initially serves as a tool for communication and social interaction. Language, as a tool of social relations, has been transformed into a tool of internal psychic organization for the child (the appearance of one's own language, spoken language and verbal thought) (Ivič, 2008:362).

The teaching (learning) process helps equip the individual with a tool that is irreplaceable in its nature, therefore very important, which is precisely language. During this process of language acquisition, this tool becomes an integral part of the individual's physical structure (with the development of internal language). However, there is something more: new cognitions (such as language), which are of social origin, begin to interact with other mental functions, such as thought. This collision gives rise to new functions, such as spoken thought. This hypothesis of Vygotsky has not been used in research, not even in the psychology of today. The decisive factor in development is not the progress of each function addressed in particular, but the changing relationship between different functions, such as logical memory, expressed (spoken) thought, and so on. In other words, development consists in the formation of composite functions, systems of functions, systemic functions and functional systems.

Vygotsky and McLahen have stated that the environment is the one that carries the deep meanings. Both authors use written language as an example to illustrate this. An individual who has mastered the written language is not simply a person that possesses a technical skill. According to them, written language and book-

based culture have a profound influence on the ways in which perception, memory and thought work. This is because the written language contains within it a model for the analysis of reality and psychological technologies, including in particular a marked power of memory, which alternates the relationship between memory and thought" (Ivič, 2008:366-377). Therefore, the acquisition of written language enables individuals to adapt for their own use, techniques that become "internal techniques". Thus, a cultural tool becomes personal to the individual by becoming ingrained in him/her.

According to Vygotsky, the basic feature of scientific conceptions is their structure; the fact that they are organized in hierarchical systems (other possible systems would include "networks", "groups", "genealogical trees", etc.), the absorption of which creates deep changes in the way children think. In this case, children expand greatly possibilities of their thought process, because such a structure makes them capable of creating a series of intellectual operations. This absorption is made possible through systematic education received at school. This leads to the second model of development, which Vygotsky calls "artificial development": "Education can be defined as the artificial development of the child. Education is not simply limited to influencing developmental processes; it reshapes in a fundamental way all behavioural functions".

This led Vygotsky to his discovery that the absorption of knowledge systems based on such a degree of generalization and interdependence of concepts within a network, which soothes the transition from one concept to another, and simplifies the implementation of intellectual operations and the existence of external models (in books or presented by the teacher) for directing these operations, simplify the fulfilment of the individuals and the direction of their cognitive processes. This process of careful self-regulation can be helped by the type of learning process (verbal learning, explanation of intellectual methods of approach, description of the concept-building process, concept-building in general, monitoring of the learning process by adult experts, etc. (Ivič, 2008:368-369).

The Constructivist Approach of Today's Curriculum Framework in Kosovo

Before the new curriculum came into service as an official document in Kosova's education system, the learning objectives were addressed in the previous programs, and the debate about them remained open for a long time**.** Constructivism is mentioned in the curriculum framework of Kosova as a meaningful instruction, referring to it as a lesson that conveys a message to students, related to their personal experiences and oriented towards practical and concrete work (Korniza Korrikulare Final.pdf (rks-gov.net), 2016:65).

Pedagogy with objectives referring to behaviourism has had a double function: as a pedagogical approach and as a technique for designing educational programs. The pedagogical approach and the designing technique are two different things, which are not automatically related. However, the approach that is applied to learning is not called pedagogy with objectives, only because the respective educational programs define the objectives. Meanwhile, behaviourism has continued to influence the educational system in our country and beyond, from the concept of learning to strategies for designing and implementing educational programs/projects (setting objectives, structuring content, developing taxonomies and evaluation), in the preparation of teachers, etc. (Karameta, 2014:158).

Benjamin Bloom first did the classification of educational objectives according to a hierarchical list of thinking habits that build on each other. He divided this classification into six levels of thinking.

Due to the fact that school thinking is rather more spiral (recursive) than linear, this linear model of teaching, despite the fact that it could be appropriate, cannot always be completed according to this linearity. Even Bloom himself and other co-authors admit that different individuals can use thinking habits in different ways. For example, one might use evaluation – the most difficult level of thinking according to their system – before processing knowledge at a lower (or easier) level. Alternatively, one does not need to go through all levels of thinking, to make a successful synthesis or evaluation. And, because of the nature of the human brain, learning is "co-occurring" rather than "sequential," which means that many things happen in the brain at the same time - many things that today cannot still be understood (Wofle, 2001).

Subsequent studies provide practical explanations on how various habits relate to each other. Marzano, Pickering and Arredondo divide learning habits into the following categories: concentration, memory, organization and integration (Marzano et al; 1997), identifying or matching similarities and differences, summarizing, raising, and testing hypotheses. While Wiggins and McTighe (2000) created a framework with what they call the six sides of understanding: explanation, interpretation, application, perspective taking, putting oneself in another's place and knowing oneself. According to them, thinking, language and the subject matter have a symbiotic relationship with each other, reinforcing, and at the same time depending on each other.

According to the curricula of the Albanian language, students must practice the knowledge acquired from literature, culture, language, through various forms of individual and group creativity, including essays, projects, various works, which enable students to structure their thoughts, make judgments and develop imagination.

Learner-centred methods are usually related to the learner's needs, desires, and situations. These methods (like communicative language teaching) seek to ensure that students practice language structures. On the other hand, the language-centred method (the audio-lingual one) is mainly related to linguistic forms, which aims at providing opportunities for students to practice language structures in the classroom. From these perspectives in both methods, language development is intentional rather than accidental. The learning-centred method is related to the cognitive processes of language learning. These methods seek to provide opportunities for students to participate in classroom task interactions to gain linguistic and pragmatic skills and knowledge.

The requirements of the curriculum to the teacher are to use a range of methods, adapted to the context, needs, interests and student opportunities; select relevant content for students and plan an integrated learning process, taking into account the connection between subjects and areas of the curriculum (Korniza Korrikulare Final.pdf (rks-gov.net), 2016:56).

Teaching methods and techniques are as varied as the types of learning themselves. Teachers can use combined teaching techniques and methods to achieve the highest possible results during the teaching process. Aiming to fulfil the requirements for qualitative learning, in the programs of the Albanian Language subject, the following techniques maybe suggested: explanation and clarification; oral expression; written expression; problem learning; discussion (debate); group work; demonstration and interpretation; critical thinking technique; brainstorming and self-research (research).

METHODOLOGY

In order to present a reflection over the use of the abovementioned suggested techniques, and with the aim of applying constructivism methodology during lessons of the Albanian Language classes, the research included observation and analyses of 64 classes of Albanian Language in eight schools in Kosovo (Prishtina, Ferizaj and Gjakova) with twelve teachers involved.

RESULTS

As table No. 1 shows, each of the 26 listed technique reflects the corresponding percentage over their use by teachers during Albanian language classes. The extracted percentage enabled analyses and results over conclusions on application of constructivist approach as a mean of development of students' linguistic/communicative competence.

Not implementing this approach in its full form through interactive techniques is one of several factors that continues to cause stagnation in the development of students' language skills. According to some previous researches, students of grades IX and XII in Kosovo have not shown satisfactory results regarding the mastery and use of Albanian grammar in written discourse, thus showing the instability of language skills in general. They were tested by engaging them to write a short essay of about 10-15 lines. Through this research, we have come to the following conclusions: students have problems not only of a grammatical nature, but also of a lexical, spelling nature, to communicate their thoughts through written discourse (Pasha-Hasimja, 2022:160).

The result of this research showed that a limited number of techniques are used. Amongst the most used ones during respective classes are: Venn Diagram, KWL (Know-Want-To-Know-Learned), DRTA, Title Finding, Concept Map, INSERT, Brainstorming, Tree of Thoughts, Pentagram Techniques used during Albanian language classes.

Table 1. The use of techniques in Albanian language classes.

Technique		Usage percentage (177)
1	Sentence analysis	14 times or 7,9%
2	Conversation	8 times or 4,51%
3	Venn diagram	3 or 1,69%
4	KWL	10 or 5,64%
5	DRTA	7 or 3,95%
6	Finding the title	1 or 0,56%
7	Concept map	4 or 2,25%
8	INSERT	10 or 5,64%
9	READING	13 or 7,34%
10	Listing	2 or 1,12%
11	The tree of thought	7 or 13,95%
12	The pentagram	4 or 2,25%
13	Presentation-discussion	1 or 0,56%
14	Double work	1 or 0,56%
15	Directed work	2 or 1,12%
16	Individual work	5 or 2,82%
17	Questions - answers	1 or 0,56%
18	Writing	17 or 9,60%
19	Explanation	9 or 5,08%
20	Table mat	1 or 0,56%
21	Brainstorming	38 or 21,46%
22	Concept table	1 or 0,56%
23	Show-identify-compare-explain	10 or 5,64%
24	Independent work - solving tasks	6 or 3,38%
25	I read; you listen	1 or 0,56%
26	Game in groups	1 or 0,56%

CONCLUSION

After the observation, analysis and interpretation of the data, the following conclusions were drawn:

1. The techniques used by teachers were sometimes not implemented according to the standards required by a certain technique;
2. Teachers' techniques, especially in the first and last part of the lessons, were based on memorisation and mainly aimed at mastering the facts;
3. Teachers aimed to meet the goals rigidly as defined in the curriculum, due to their longer inexperience in knowing, understanding and applying constructivist theory. Therefore, the curriculum needs to define theories of knowledge and make them clear to teachers, so that they can decide what actions to take in order to build their students' knowledge, depending on the teaching goal's purpose. Compatible to the situation in the school, students' needs and beyond.
4. During the teaching process, the observable behaviour of the student was often based on the transmission of the content by the teacher. Majority of students were passive, reproducing the non-contextualized contents of the Albanian language course. Therefore, the epistemological reference could be referred almost entirely to behaviourism.
5. There was a lack of activities to encourage social action, as well as life activities, from the real life situations.
6. Language was treated more as a system than as a means of communication. Teachers defined objectives and outcomes aiming more at the identification and theoretical elaboration of grammatical issues;
7. In the observed lessons, the main goal in the Albanian language course was to enable the students distinguish parts of speech and their grammatical features. This is due to the non-harmonized content

of language knowledge with that of communication skills in textbooks. During respective lessons, there was a lack of efforts not to treat the language isolated from life, i.e. as a mean for creation of social relationships. As a result, even grammatical knowledge when treated in that way is acquired with difficulties by students' side.

8. Reading texts silently, answering back to some questions, or writing only a five-line technique, are not to be qualified active and inclusive. Instead, they are passive methods and consequently fruitless to many students.

9. Classroom or even homework assignments related to grammatical issues, such as declension of nouns, adjectives, pronouns and conjugation of verbs, without analyzing and practicing them through different, real-life situations, for a long time remainonly as mechanical lessons, to the detriment of not equipping students with the practical ability to use the language fluently and to understand the world as objectively as possible.

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