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Connectivism as a Pedagogical Approach and the Teaching of Historical Social Sciences

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Abstract
The research seeks to determine the correlation that exists between the variables: Connectivism as a Pedagogical approach and the Teaching of Historical Social Sciences at the Faculty of Education, Federico Villarreal National University, 2020. The working hypothesis was Connectivism as a Pedagogical approach is related to the Teaching of the Historical Social Sciences. The research approach was quantitative, correlational level, non-experimental cross-sectional design. The collection instrument was a questionnaire applied to 74 students of the History of Social Sciences specialty. Pearson's correlation test was used. The results indicate that the variables have a correlation of 0.601 with 95% confidence at 0.05 of significance, then it is determined that there is a high correlation between them. In conclusion, it can be stated that Connectivism as a Pedagogical approach maintains a high correlation with the Teaching of Historical Social Sciences at the Faculty of the National University Federico Villarreal.
Key words: Historical Social Sciences, Connectivism, Pedagogical approach, Teaching,

Introduction

At present, all educational institutions use information and communication technologies (ICT) as part of their teaching materials, which allow students to learn better. Apparently, students feel much more motivated, and it shows how their participation is more dynamic. At level of teachers, there is the reference students will better capture learning is taught to them in class; therefore, Connectivism as a pedagogical approach is positive, and teaching processes become much more pleasant. Therefore, it is thought the competences raised in Curricular Plan of the course, will be reached by majority of students. By making Connectivism as a pedagogical approach, the teaching of the Historical and Social Sciences will be better and, in the end, programmed objectives can be achieved. It should be borne in mind technological, attitudinal and cognitive skills are not always achieved by students, as a whole variety of difficulties will arise in it. Likewise, we cannot leave aside the professional training of the teacher who teaches the course of Historical Social Sciences, also the way or form in which he carries out his curricular planning, and at the end of all this like him, he will propose his didactic strategies.

The DigCompEdu Framework (2019), developed by Joint Research Centre of European Commission (JRC), which seeks to help develop, understand and evaluate digital competence for meaningful integration of digital technology into any teaching-learning process. DigCompEdu details 22 specific digital competencies of teachers, organized into 6 areas: Professional commitment: communication and collaboration with the educational community; Digital resources: selection, creation, modification and protection of educational digital resources; Teaching and learning: integration of

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new resources and methodologies to promote collaboration, autonomous learning and problem solving with ICT; Evaluation and feedback: use of digital technologies to evaluate and improve the development and learning needs of students; Empowering students: importance of creating meaningful learning experiences take into account students' ideas. In addition, it emphasizes attention to diversity with ICT, ensuring equitable access to technologies; and facilitate digital competence of students: related to the development of citizen digital competence of students (Marco DigComp). In this sense, if university teachers do not have the necessary digital skills, there is a risk of not relevantly facing the criteria for monitoring non-attendance, generating deficiencies in the development of professional skills and above all in the quality of learning, as well as the respective sanctions by the Sunedu, significantly impacting on the educational service of the UNFV.

Likewise, according to provisions of Vice-Ministry Resolution No. 081-2020-MINEDU, the Technical Standard entitled "Provisions for the prevention, care and monitoring of the Coronavirus (COVID-19) in universities at national level was approved and, in addition, it was provided, exceptionally, postponement and / or suspension of start of classes, teaching, cultural and artistic and / or recreational activities that are carried out in person in premises of headquarters and subsidiaries of public and private universities and graduate schools until March 30, 2020, a period that was extended until the face-to-face educational service is provided through Vice-Ministry Resolution No. 095-2020-MINEDU. These provisions have accelerated the incorporation of connectivism as a pedagogical approach to university teaching in our country. In this context, the authorities of the Federico Villarreal National University in the Faculty of Education, evidently, has implemented a series of trainings in order to mitigate the sudden impact of changing from a face-to-face modality to a virtual one, where university teachers will perhaps have some difficulties to build their virtual discussion forums, upload their informative learning materials, stand in front of a camera and use a microphone, evaluate through networks; which deserves to be studied to determine the relationship of the digital competences of the university teacher in the development of remote learning, of future education professionals. The need to have adequate technological systems, allows us to improve the professional training of the students of the Faculty of Education of the Federico Villarreal National University, in current year 2020. That is why we raise as a question, in our research, the problematization How is connectivism related as a Pedagogical approach and the Teaching of Historical and Social Sciences in the Faculty of Education Federico Villarreal National University, 2020? generating a great concern in the process of teaching learning. Likewise, the present research is justified, because it allowed us at the end of it to provide the necessary guidelines for the good development of Connectivism as a Pedagogical approach and Teaching of the Historical and Social Sciences. In this way, the objective of the research was to identify the relationship between Connectivism as a Pedagogical approach and the Teaching of Historical and Social Sciences at the Faculty of Education Federico Villarreal National University, 2020.

Background

Within international scope, the following stand out: Bernal (2019) Connectivism and its application through web 2.0 tools: configuration of a learning network for the production of scientific articles. He proposed the formulation of a pedagogical proposal that could be applied in a face-to-face educational context of training. Concluding, that the Connectivism as a learning strategy allows to

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configure learning networks that promote the development of technological, attitudinal and cognitive competences of university students who must be able to produce academic documents, such as scientific articles under the regulations that are required for publication. Likewise, Villada (2013) in his research work “Design and implementation of virtual course as a didactic tool for the teaching of quadratic functions for the ninth grade in the educational institution Gabriel García Márquez using Moodle. He maintained the promotion of visual audio, and the use of new technologies in the classroom, gives the classes greater interest and dynamism, achieving an active participation on the part of the students, promoting a high level and quality training that can become very useful for sociocultural interactions. In this sense, Meléndez (2013) in his research work “Virtual platforms as a resource for teaching at the University: analysis, evaluation and proposal of integration of Moodle with web 2.0 tools". He considered that the fundamental pillar for the rapprochement between the teacher and the student will be the social networks, social web, where the figure of tutor professor appears, therefore, the ICT will be indispensable mediating elements for the improvement of a didactics and a significant learning.

On national stage, Madrid and Villegas (2015) in their research work "Uses of open educational resources (OER) in teachers of the secondary education level of two public educational institutions: one from Callao region and another from Lima provinces". Its objective was to determine the ways of using the Open Educational Resources (OER) carried out by teachers at secondary education level of a Public I.E., of the Callao Region and another of Lima Provinces. Teachers of both cases frequently use the Google search engine and well-known or popular repositories in their environment such as: Perú Educa, YouTube and Slide Share, these allow them to find various open educational content.

Connectivism as a pedagogical approach

For Siemens (2004), connections and the way information flows result in knowledge, existing beyond the individual. Learning is transformed into ability to identify significant flows of information and to track those significant flows. He states that:

"Connectivism presents a learning model that recognizes tectonic movements in society where learning is no longer an internal, individualistic activity... Learning (defined as actionable knowledge) can reside outside of us (within an organization or a database)."

Connectivists like Siemens and Downes tend to be somewhat vague about the role of teachers or instructors, as focus of connectivism is more on individual participants, networks, flow of information, and resulting new forms of knowledge.

A teacher's primary goal seems to be to provide the initial learning environment and context that brings students together, and helps them build their own personal learning environments will allow them to connect to "successful" networks, with the assumption that learning will automatically occur as a result of exposure to flow of information and autonomous reflection on its meaning. There is no need for formal institutions to support this type of learning, especially since this type of learning relies heavily on easily accessible social media for all participants.

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Siemens (2004), identifies principles of connectivism as follows:
Learning and knowledge are found in diversity of opinions
Learning is a process of connecting nodes or specialized sources of information
Learning may reside in non-human devices
The ability to know more is more important than what is currently known
It is necessary to nurture and maintain connections to facilitate continuous learning
The ability to see the connections between fields, ideas, and concepts is a basic skill
Knowledge (accurate and up-to-date) is the goal of all connectivist learning activities
Decision-making is itself a learning process. The choice of what to learn and the meaning of incoming information is seen through the lens of a changing reality. While there is a correct answer right now, tomorrow it may be incorrect due to alterations to information affecting the decision

Teaching the Historical and Social Sciences

In general terms, we can say the Social Sciences are all those from different points of view study the phenomena derived from action of man as a social being and in its relationship with environment where he lives. However, there is currently no unanimous view of what is considered to be Social Sciences.

In scientific literature this concept has been presented in an ambiguous way, using term Social Sciences in a confused and equivocal way. The lack of consensus between schools, trends and authors has led to creation of even semantic problems, referring to them interchangeably with the denominations of Human Sciences, Human Sciences, Cultural Sciences, in addition to that of Social Sciences; it also speaks of Social Science.

Among the many definitions of the Social Sciences, perhaps the one formulated by National Science Foundation is one of the most complete: The Social Sciences are intellectual disciplines that study man as a social being through scientific method. It is his focus on man as a member of society and on the groups and societies he forms, that distinguishes Social Sciences from physical and biological sciences.

Social knowledge is a particular knowledge with respect to knowledge in general, while social life and its manifestations constitute only a sector of total reality, which, moreover, presents very particular characteristics and in front of which the subject of knowledge occupies a very special position, since it is an integral element of the same object of knowledge, which leads to an inevitable confusion between the two. This circumstance makes difficult the distancing required in scientific research, since researcher necessarily acquires in his social life a previous conception of social phenomena he studies and in which he lives immersed, although it also presents the advantage that the lived experience can help the understanding of what is investigated. Scientific knowledge of social reality is possible when we apply the scientific method, when we pose problems of social life, anticipate solutions and contrast them with reality through observation, classification, analysis and explanation of social phenomena.

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Objectivity of knowledge, understood as the correspondence between known reality and result or product of that knowledge, can never be total and we will never have an exact measure of degree to which it is achieved. However, because scientific knowledge normally involves a much more elaborate and contrasted process of knowledge production than other knowledge, it is logical that it is also the one that can provide a greater guarantee of being more objective, that is, providing a deeper, more complete and structured view of reality. What the social scientist must do is to make clear what he believes to be the truth of what he works to try to achieve impartiality.

Descriptive and explanatory categories of Social Sciences are subjective, so these disciplines must work with "non-objective" research techniques. Consequently, it is argued the creation of an "objective" social science is a vain hope, since to exclude on principle any vestige of subjective and motivating interpretation of the study of human problems is to remove from such a study consideration of any genuine social fact.

Requirement of a "valorative neutrality" does not mean to detach oneself from one's own values, but rather to abide by facts and respect them, that is to say the investigator in no case can adulterate or falsify them for the fact that are annoying or contrary to his convictions. In long run, this approach is counterproductive, because things are still as they are, no matter how much we disguise them. This is fundamentally what the ethics of scientific research are all about.

Materials and Methods

This research is of a Quantitative type, since it is intended to explain how Connectivism is related as a pedagogical approach and teaching of social historical sciences trying to seek the accuracy of measurements or indicators in order to generalize their results to populations or broad situations. (Hernández, Fernández and Baptista, 2014). The relationships between study variables determine a descriptive correlational scope. The relationship between variables allows us to use a non-experimental design. The study population is made up of students from the Vocational School of Secondary Education – Specialty: Social Historical Sciences made up of a total of 91 students. The sample is made up of 74 students.

Information collection instrument is made up of 30 items, based on the evaluation of dimensions presented by each study variable. For the analysis of descriptive statistical data (frequency tables and bar graphs), as well as inferential statistics (Pearson's sample correlation) to determine the relationship between study variables.

Results

In Table 1 and Figure1, conectivism at an efficient level represents 48.65%, regular 45.95% and inefficient 5.41%; being that between optimal and regular represents 94.6%.

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Table1. Connectivism in Faculty of Education at Universidad Nacional Federico Villarreal, 2020.

		Frequency	Percentage	Valid percentage	Cumulative percentage
Valid	Efficient	36	48,6	48,6	48,6
	Regular	34	45,9	45,9	94,6
	Inefficient	4	5,4	5,4	100,0
	Total	74	100,0	100,0	

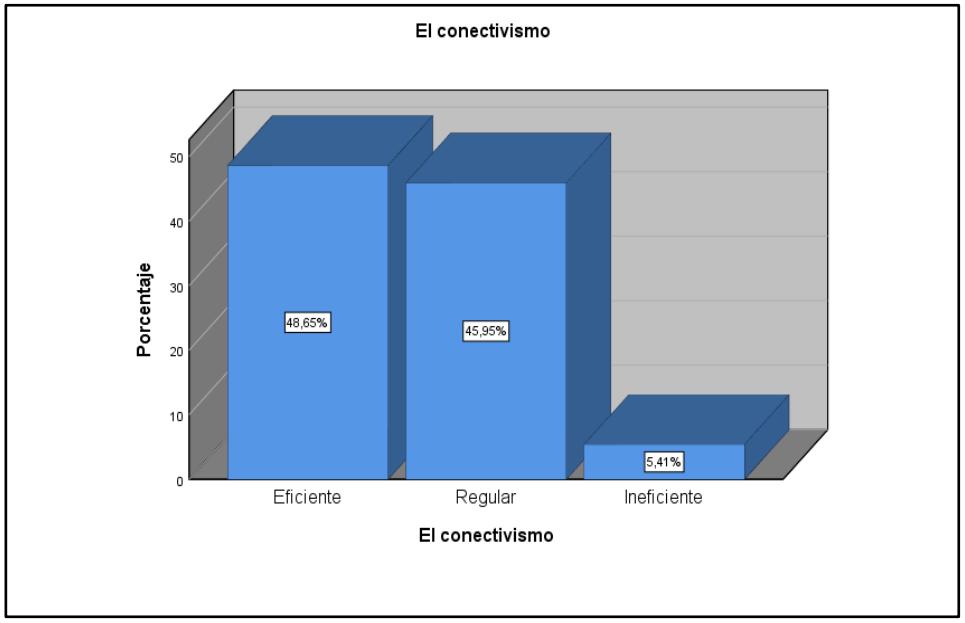

Figure 1 Frequency diagram of variable conectivism in Faculty of Education at Universidad Nacional Federico Villarreal, 2020.

As can be seen in Table 2and Figure2, la Teaching of the Historical and Social Sciences at an efficient level represents64.9%, regular 31.1% and inefficient 4.1%; being that between optimal and regular represents 95.9%

Table2. The Teaching of Historical and Social Sciences at the Faculty of Education at Universidad Nacional Federico Villarreal, 2020.

		Frequency	Percentage	Valid percentage	Cumulative percentage
Valid	Efficient	48	64,9	64,9	64,9
	Regular	23	31,1	31,1	95,9
	Inefficient	3	4,1	4,1	100,0
	Total	74	100,0	100,0	

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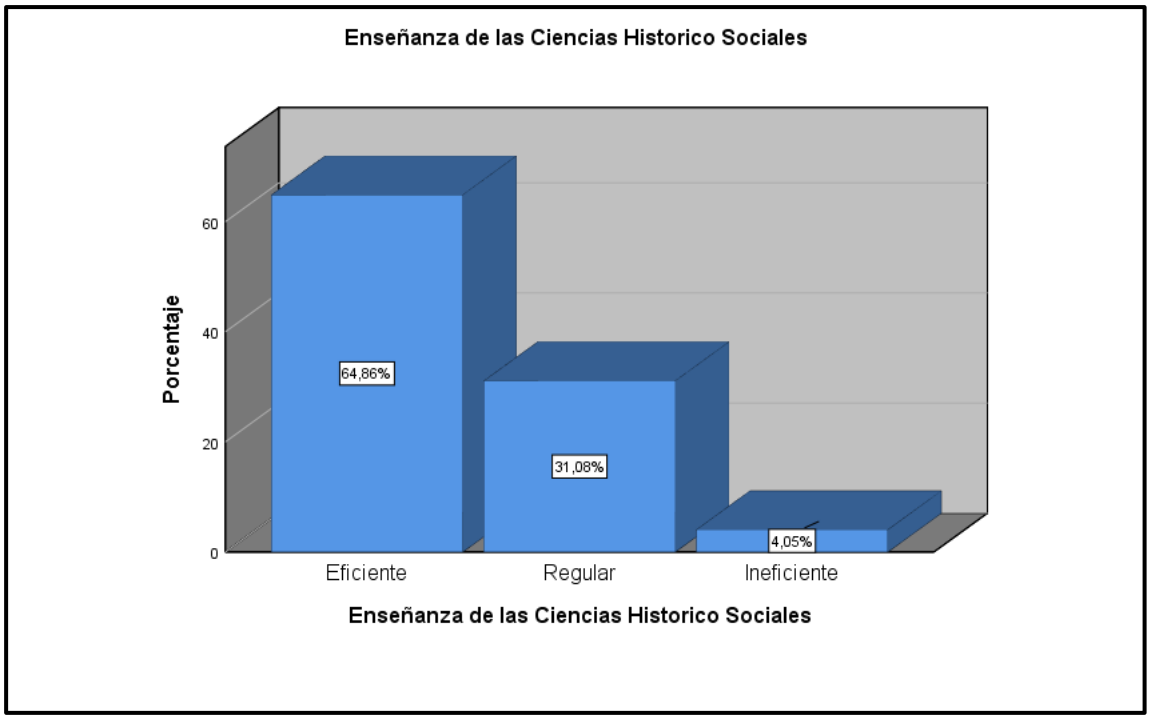

Figure 2. Frequency diagram of Teaching of Historical and Social Sciences.

In Table 3, after verifying compliance with assumption of normality for the two study variables, we considered using Pearson's correlation test, with which degree of correlation between the variables was determined. Thus, test results show a positive (r= 0.601) and significant (p≤0.05) correlation between the variables, suggesting Connectivism as a Pedagogical Approach is related to Teaching of Historical and Social Sciences at the Faculty of Education, Universidad Nacional Federico Villarreal, 2020.

Table 3. Connectivism as a pedagogical approach and its relationship with the Teaching of Social Sciences.

	Connectivism as a pedagogical approach		
Teaching the Historical and Social Sciences	Pearson's sample correlation		R^2
	Coefficient (r)	P value	
	0,601	0,000	0,3612
n = 74			

Discussion

In addition, it can be observed there is a relationship with research carried out by Bernal (2019) Connectivism and its application through web tools 2.0: configuration of a learning network for production of scientific articles, which, allows to confirm that Connectivism as a Pedagogical approach is related to professional training. likewise, in the research of Villada (2013) in his research work "Design and implementation of virtual course as a didactic tool for teaching of quadratic functions for the ninth grade in the educational institution Gabriel García Márquez using Moodle", in which we note that technological competences are related to the teaching of social historical

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sciences. It is also important to highlight Meléndez (2013) in his research work "Virtual platforms as a resource for teaching at the University: analysis, evaluation and proposal of integration of Moodle with tools of Web 2.0", which motivate more classes, where attitudinal Competences are related to the Teaching of Social Historical Sciences. Madrid and Villegas (2015) in their research paper "Uses of open educational resources (OER) in teachers of the secondary education level of two public educational institutions: one from the region of Callao and another from Lima provinces", which allows us to reaffirm that Cognitive Competences are related to the Teaching of Historical and Social Sciences.

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