PANORAMA
ISSN: 1909-7433
ISSN: 2145-308X
ednorman@poligran.edu.co
Politécnico Grancolombiano
Colombia

EDUCATIONAL INNOVATION: PERSPECTIVES OF TEACHERS AND STUDENTS AT UNIVERSIDAD NACIONAL DE RIO CUARTO (ARGENTINA) AND UNIVERSIDAD DEL ATLANTICO (COLOMBIA)

Moreira, Clarisa; Abuzaid, Jael Naim; Elisondo, Romina Cecilia; Melgar, Maria Fernanda
EDUCATIONAL INNOVATION: PERSPECTIVES OF TEACHERS AND STUDENTS AT UNIVERSIDAD NACIONAL DE RIO CUARTO (ARGENTINA) AND UNIVERSIDAD DEL ATLANTICO (COLOMBIA)
PANORAMA, vol. 14, núm. 26, 2020
Politécnico Grancolombiano, Colombia
Disponible en: https://www.redalyc.org/articulo.oa?id=343963784017
DOI: https://doi.org/10.15765/pnrm.v14i26.1480

Artículos de investigación científica y tecnológica

EDUCATIONAL INNOVATION: PERSPECTIVES OF TEACHERS AND STUDENTS AT UNIVERSIDAD NACIONAL DE RIO CUARTO (ARGENTINA) AND UNIVERSIDAD DEL ATLANTICO (COLOMBIA)

Innovaciones educativas: perspectivas de docentes y estudiantes de la universidad nacional de río cuarto (argentina) y la universidad del atlántico (colombia)

Clarisa Moreira clarisamoreira94@gmail.com
Universidad Nacional de Rio Cuarto, Argentina
Jael Naim Abuzaid jaelabuzaid@gmail.com
Universidad Nacional de Rio Cuarto, Argentina
Romina Cecilia Elisondo relisondo@gmail.com
Universidad Nacional de Rio Cuarto, Argentina
Maria Fernanda Melgar fernandamelgar@gmail.com
Universidad Nacional de Rio Cuarto, Argentina

PANORAMA, vol. 14, núm. 26, 2020

Politécnico Grancolombiano, Colombia

Recepción: 30 Noviembre 2019
Aprobación: 30 Noviembre 2019

DOI: https://doi.org/10.15765/pnrm.v14i26.1480

Redalyc: https://www.redalyc.org/articulo.oa?id=343963784017

Abstract: Innovating in universities is indispensable considering the constant changes and complexities of current social problems. The study herein intends to analyze conditions that enhance and deter educational innovation in universities from the perspective of teachers and students. Within these conditions, the role of technology as innovation tool is inquired into. A qualitative study was developed to recover the meanings provided by teachers and students of two Latin American universities: Universidad Nacional de Rio Cuarto (UNRC) in Argentina and Universidad del Atlantico (UA) in Colombia. Eighteen teachers (eleven from UA and seven from UNRC) and 32 students (22 from UA and ten from UNRC) from the special education and psychopedagogy bachelor's degree programs participated in the study. Data collection instruments included interviews and open questionnaires. The analyses indicate the following as aspects that facilitate innovation: continuous teacher training, innovation research, institutional policies, teamwork, incorporation of technologies and activities beyond the classroom. Resistance to change, bureaucratization, multiplicity of tasks, massiveness, and lack of time appear to be aspects that obstruct innovation according to teachers and students who participated in the study. The purpose is to generate knowledge contributing to understanding educational innovation as a complex field; moreover, it is also expected to provide contributions concerning the design and implementation of educational proposals and policies aimed at transforming universities.

University, educational innovation, technologies, learning, teaching
https://doi.org/10.15765/pnrm.v14i26.1480

Keywords: University, educational innovation, technologies, learning, teaching.

Resumen: Innovar en las universidades es indispensable, considerando los constantes cambios y la complejidad de las problemáticas sociales actuales. Compete al presente

estudio analizar, desde la perspectiva de docentes y estudiantes, condiciones que potencian y obstaculizan las innovaciones educativas en la universidad. En el marco de estas condiciones, se indaga respecto del papel de las tecnológicas como herramientas para la innovación. Se desarrolla un estudio cualitativo donde se recuperan los significados construidos por docentes y estudiantes de dos universidades latinoamericanas: la Universidad Nacional de Río Cuarto (UNRC), de Argentina, y la Universidad del Atlántico (UA), de Colombia. Participaron del estudio 18 docentes (11 de la UA y 7 de la UNRC), y 32 estudiantes (22 de la UA y 10 de la UNRC), de las carreras de Licenciatura en Educación especial y Licenciatura en Psicopedagogía. Como instrumentos de recolección de datos se utilizaron entrevistas y cuestionarios abiertos. Los análisis indican los siguientes aspectos facilitadores de la innovación: formación docente continua, investigación de las innovaciones, políticas institucionales, trabajo en equipo, incorporación de tecnologías y actividades más allá de las aulas. Resistencias al cambio, burocratización, multiplicidad de tareas, masividad y falta de tiempo aparecen como aspectos obstaculizadores de las innovaciones, según los docentes y los estudiantes que participaron del estudio. El propósito es generar conocimientos que contribuyan a la comprensión de las innovaciones educativas como campo complejo. También se espera realizar aportes para el diseño y la ejecución de propuestas y políticas educativas orientadas a la transformación de las universidades.

Palabras clave: Universidad, innovación educativa, tecnologías, aprendizaje, enseñanza.

Introduction

Nowadays, accelerated social changes, multiple and complex forms of communication and of knowledge construction call for educational institutions' innovation on practices, study plans and ways of understanding teaching and learning processes. Schools and universities (as social institutions) are shaped and reshaped within this complex and dynamic current scheme in which technological mediation plays a crucial role in people's lives. In the educational field, technology is regarded as a tool for the democratization of knowledge and aims at the construction of more inclusive educational institutions and societies (Norman-Acevedo, 2019).

According to UNESCO, educational innovation is:

> (...) a deliberate and planned act of problem-solving that aims at achieving higher quality of student learning, exceeding the traditional paradigm. It entails transcending the academist knowledge and shifting from the students' passive learning to an idea of interactive learning that is built in everyone (2016, p. 3).

It is pertinent to refer to UNESCO's definition because it synthesizes some important aspects of educational innovation: change, problem-solving, active student role and importance of social interactions in teaching and learning. Likewise, it is relevant to underline the role that the international organism gives to educational innovation as the road conducive to the transformation of teaching and learning contexts.

This study is interested in analyzing the conditions that enhance and hinder educational innovations in universities from the perspective of teachers and students. These conditions led to an investigation on the role of technology as innovation tool. A qualitative study was developed to recover meanings provided by students and teachers from two Latin American universities: Universidad Nacional de Rio Cuarto

(Argentina) and Universidad del Atlantico (Colombia). The study does not intend to generalize but to analyze actors' perspectives and to build knowledge about researched cases. The purpose is to generate knowledge contributing to understanding educational innovation in universities as a complex and dynamic field of study, it is also expected to provide practical contributions oriented towards design and execution of innovative educational proposals.

Theoretical Framework

Innovation is perceived as a rupture or change in the assumptions and practices of actors and institutions, which are not random or deliberate but require intent and planning in order to improve situations that may be problematic (Macchiarola, 2009). Similarly, Rivas et al. (2017) add that these types of planned actions drive deep changes based on desire and passion to teach and learn; they also believe that educational innovation implies rupture or change in terms of traditional education's characteristics, for example, rote, ritualistic and demonstrative learning. In that regard, the authors argue that this innovation fosters connections with knowledge and learning that are based in understanding, creativity and metacognition, generating learning climates sustained in dialog and participation. Lastly, the authors express that innovation is created in certain institution and involves several actors that use scientific evidence, practical knowledge and experiences of teachers and researchers; these are real, have been implemented and it is possible to find concrete examples of how they work, as well as if it is feasible, practical and adaptable to other contexts.

Concordantly, Libedinsky (2016) considers that emerging didactic innovations are proposals generated by teachers, which are characterized by opposing and breaking apart from current consolidated practices that are pieced together with the curricular content. These are implemented in a set context and time, recovering traditions and backgrounds and responding to teachers and students' cultural interests.

Understood as the foregoing, innovation is a wide and complex process with scopes that go beyond the classroom. It can be said that innovation has a nature of educational and social transformation; it constitutes a change that affects structural aspects of education in order to improve its quality.

Therefore, specialists' point of view poses a great challenge, when referring to innovations, they involve epistemological stances and theories that need to be specified when following a pedagogical and didactic road intended to rupture and oriented at real change. These need to tend to the requirements of a positioned and contextualized practice and suggest learning that that can only be achieved through innovation, with knowledge that needs to become *praxis*, meaning, a know-how.

According to Zabalza (2003), innovating means introducing justified changes, thus, innovating in teaching entails the application of three conditions: openness, update, improvement; i.e., it is indispensable to

have capacity for adaptation and flexibility and to drive improvement in educational processes. The author also highlights two essential conditions for innovation in the university: practicality and feasibility (it has to have concrete results that can be put in place).

... we are faced with innovation when a well-supported change process is expected. Feasible and practical changes that are thought of from the perspective of improving and updating our activities and training devices at the core of each degree program. Changes which will be documented and evaluated. A proposal of change that has been executed in a project that functions as its development and commitment guide. (Zabalza, 2003 p. 122)

In sum, educational innovation is understood as planned changes that are oriented towards improving teaching and learning processes. These changes bring new ways of thinking and doing to educational contexts and try to boost learning and teaching. Multiple conditions interact in innovation development; this study will recover some of them from the perspective of teachers and students.

> ... we are faced with innovation when a well-supported change process is expected. Feasible and practical changes that are thought of from the perspective of improving and updating our activities and training devices at the core of each degree program. Changes which will be documented and evaluated. A proposal of change that has been executed in a project that functions as its development and commitment guide. (Zabalza, 2003 p. 122)

Materials and Methods

A phenomenological qualitative study was developed to analyze meanings given by actors engaged in different educational innovations in the universities. As per Creswell and Poth (2007), phenomenological studies try to grasp the objects of study as perceived by its participants.

The sampling type was intentional and criterion-based, it considered teachers in the special education and psychopedagogy bachelor's degree programs at Universidad Nacional de Rio Cuarto, and teachers in the special education bachelor's degree program at Universidad del Atlantico; as well as advanced students from both universities and programs. Eighteen teachers participated (eleven from Universidad del Atlantico and seven from Universidad Nacional de Rio Cuarto). The student sample comprised 32 people, 22 enrolled in the special education bachelor's degree program at Universidad del Atlantico (Colombia) and ten in the psychopedagogy bachelor's degree program at Universidad Nacional de Rio Cuarto (Argentina); the sample included 31 women and a man and their ages ranged between seventeen and 44 years of age.

Data collection instruments included interviews with teachers and open-ended questionnaires with students. Orienting questions of interviews and questionnaires intended to capture participants' ideas in terms of what it is to innovate and what it means to do it in education, what type of innovations are conducted by teachers and how. Likewise, it was intended to identify how students perceived said innovations,

positive and negative aspects mentioned about facilitating or hindering aspects of innovations of educational innovation, which changes could take place to innovate in the classroom, and other questions arising in the data collection process, e.g., elements that an innovative class should include, links between innovation and concepts such as creativity, ICT, emotions, and others.

To analyze the data, open, axial and selective coding processes were conducted (Soneira, 2006). The categories were built based on data coding and emerging comparisons. Obtained data and results were interpreted based on theoretical approaches and current studies. To build the categories, data analyses of questionnaires and interviews were triangulated.

The research process was developed adhering to ethical guidelines in social sciences research. Participants were asked to give informed consent and the data handling was confidential and anonymous.

Results

Teachers and students mention different aspects, which, regarded as dimensions, can facilitate or hinder innovation processes. While in some cases, some dimensions seem to boost innovation, others seem to hinder it and that is why they are presented in an articulate way to illustrate the complexity and different perspectives of the actors.

Teacher Training

Teachers assert that continuous teacher training and permanent update are indispensable in order to innovate in the classroom. Teachers at UA consider it necessary but they regard it as a barrier because teacher training is considered expensive and often demands unavailable financial resources.

> "To some extent, due to cost and to proposed teacher training cost. Sometimes, a teacher fails to be updated because of lack of resources, not because he/she does not want to do it. In Colombia, the State does not provide teacher training, in my case I am studying my PhD, but that is an extremely rare situation. My coworkers have to invest in training, they have invested in training studies here in Colombia or abroad, it is expensive and this is a restricting factor for us." (Teacher "4", UA)

Yet, teachers at UNRC regard teacher training as one of the most important functions to innovate, they see it as a facilitating factor and mentioned existing programs such as *Proyectos de Investigacion y de Innovacion para la Mejora de la Enseñanza de Grado* (PIIMEG), dependent of the UNRC'S Academic Secretary's Office.

> "Well, I believe that knowledge and training is needed to generate rupture and breakup from ideas, thus, teacher training seems essential in educational innovation, having it and constantly seeking it and working on it; our University promotes educational innovation and many postgraduate courses for teachers to access new information and knowledge. I believe this is fundamental." (Teacher "4", UNRC)

Teachers believe that training raises awareness about the need to change and gives methodological and theoretical tools to do it. Therefore, authors Martini, Montebelli and Mancini (2009) express that scant pedagogical training is considered problematic for innovation processes. The authors mention that teachers who show interest to be updated in pedagogical topics -such as subjects' content- have the need to change, modify o transform their teaching practices. It is considered that teacher training is one of the most important when setting an innovation process in motion, its success largely depends on it. Prior studies also indicate the importance of continuous training of teachers in the development of educational transformation processes. A study by Medina and Navio-Gamez (2018) concluded that a key factor for educational innovation is teachers prioritizing constant update and perfecting. Results of the research by Pizzolito and Macchiarola (2015) reveal that teachers positively value training received in courses, seminars, workshops, study groups and postgraduate programs in the educational field; they believe that these training opportunities helped them develop new perspectives, questions and ways of thinking in terms of educational processes. It is also interesting to state that training processes get feedback from innovative practices; as per Pizzolito and Macchiarola (2015) "training acquired by teachers based on their participation in innovation allows them to build pedagogical gains which are articulated with scientific knowledge of the area in which they have been professionally trained" (p.130).

Relationships between innovation and training are permanently rebuilt in complex and dialectic ways. Innovation depends on training and teachers are formed through innovative processes. Innovation makes transformations in contexts and subjects that drive and sustain it.

Networks and Collaborative Work

Some of the consulted teachers also stressed the importance of collaborative work and network construction as ways of receiving feedback and gaining mutual learning.

> "(...) the fundamental obstacle is the teacher that follows routine practices, and also individualism; in our University, teaching is often devaluated compared with other functions such as research, teachers that give more importance to research than to innovation, so... that is why innovation in our University... PIIMEG are innovation and research projects intended to become a policy against the hegemonic policy favoring research, how? Articulating innovation and research. You can also research on your own practice and add value to that type of research." (Teacher "1", UNRC)

Martini, Montebelli and Mancini (2009) consider the following as critical elements of teamwork, group work or collaborative work: actions such as being open to dialog, responsibility, respect for others' opinions, creativity and interest for personal and group growth; from a professional perspective, these characteristics support innovative processes. Good relationships, teamwork, becoming familiar with the group members and the heterogeneity offered by each one are the traits of a cordial and

favorable work environment to address problems that may arise and thus agree on the best solution.

Pizzolito and Macchiarola (2015) also show that setting up collaborative, interdisciplinary and interinstitutional work teams is necessary to exchange and build knowledge, open spaces for discussion, articulate knowledge, interaction among peers, reassess doubts and question rules, supposition or values that were regarded consolidated and established. The development of collaborative work networks makes room to develop complementary work to manage and share diverse knowledge aimed at common strategies and objectives that consolidate group learning. Therefore, the authors consider educational innovation to be complex and identify the need to conduct interdisciplinary articulations and build networks, since supplementary and cooperative outlooks of each actor lead to addressing problems from their own multidimensionality.

Educational innovation in the university seems to depend on the construction of collaborative workspaces between teachers of the same classes and of other curricular spaces. Isolation and relational problems between groups prevent possibilities of change, as mentioned by the study's participants and seen in other studies (De la Barrera, 2007).

Institutional Dimension

As per teachers' testimonies it was clear that in the UNRC, institutional policies are considered to favor innovation, while some teachers at the UA deem said policies to be among the obstructing aspects due to the fact that they generate bureaucratization.

> "I believe that factors that help innovation have mostly to do with the institutional context; for instance, the calls for PIIMEG projects, connected with teaching innovation, are without a doubt a favoring element because they grant a framework to your specific subject project. Another good thing are collaborative practices that are articulated with other subjects and with teachers you maybe share students with, then joint innovation might achieve better results. Teamwork at the University, which is really difficult in other levels, really benefits the likelihood of innovating. Having a link with other realities and contexts..." (Teacher "3", UNRC)

Teachers at the UNRC regard these innovation policies as necessary, favorable and critical because they offer an extensive view of research and improvement to the University, while crediting quality education for the institution. In Universidad del Atlantico, teachers emphasize that administrative management, curriculum topics issued by national or regional educational policies and bureaucratization of education are factors that hinder the innovative process.

> "There are provisions in administrative management that set forth a closed and inflexible curriculum in which the teacher is tied in, his/her possibilities for change and innovation are padlocked because it is easier for educational management to model and establish schemes than to offer flexibility to the teacher to control, evaluate and follow-up. It is easier for things to be standardized, modeled,

> structured, it is way easier... but that opposes the characteristics of creativity demanded from the teacher; solving this contradiction is another element to take into account to facilitate innovation" (Teacher "B", UA)

Medina and Navio-Gamez (2018) underline the active role of institutions in the promotion of innovation-oriented collaborative and critical work. They recommend institutions to open spaces of participation and generate a sense of belonging among their members. According to Pizzolito and Macchiarola (2015), innovation deriving and promoted by institutional policies helps sustain innovative processes based on collaborative learning experiences among teachers, implicit and explicit knowledge learning occurrences and evaluations' proposal.

Multiple Tasks, Massiveness and Lack of Time

Lack of time and the simultaneous development of multiple tasks is a factor that obstructs innovation in teachers. Likewise, teaching a large class also appears to be an aspect that hampers the development of educational innovation.

> "Time, sometimes you have to fulfill academic schedules, deliver grades, develop content, units, University dynamics, I don't know if you have noticed but out of all the semesters, this has been a quiet one, yet this University has instants and moments that differ in many ways and that affect times and spaces, affecting innovation processes because these just cannot take place." (Teacher "G", UA)

> "(...), let's not say disadvantages, but there are limitations, such as the number of students in the University, for example, it has been difficult for me, I set out to implement some things and it was hard, I did it anyway but there are classes ranging between forty and fifty, so with these large groups it is difficult, it is not impossible, but it constitutes an obstacle." (Teacher "E", UA)

Similar results have been observed in other studies, several teachers think that overlaying activities and scarce time to plan and reflect make innovation difficult. Medina and Navio-Gamez (2018) ponder that the educational system has certain characteristics that limit innovation: excess of classroom hours and mounting administrative work. This overload affects planning concerning innovation and institutionalization of educational changes. Martini, Montebelli and Mancini (2009) have also showed that large classes may difficult the development of innovation, participation, interaction among groups and evaluation of changes.

Lack of availability of genuine time to constantly plan and evaluate innovation makes it difficult to sustain changes and improvement in educational contexts. Innovations in teaching demand many efforts by teachers, which are often neglected in the university spheres.

Resistance to Change

Both teachers and students express that resistance to change and fear of new things can negatively affect innovation.

> "The first obstacle that you face, aside from some predisposition and fear of change, is the amount of required documentation; it is not possible to innovate because they focus on trifle things; I am not saying that systematizing is bad, I mean it takes away from the real work with children in the classroom to fill out copious amounts of documents. I refer to it as bureaucratization of teaching, and that means talking about a closed, inflexible system in terms of education; we need to think about innovating not just in the classroom but in terms of the entities regulating education." (Student, UA)

Participants' assertions are linked to the considerations of Martini, Mancini and Montebelli (2009) stating that negative attitudes towards change and resistance by students and teachers to change are obstacles for innovation: "Dedicating time to regular tasks implies more security in the development of learning, as opposed to the altered or modified actions that an innovative project represents" (p. 90).

To face fear of change and resistance by actors, Medina and Navio-Gamez (2018) recommend institutional strategies that drive an explicit command to innovate, empowering teachers and allowing them to break from traditional teaching and encourage them to create educational change. Pizzolito and Macchiarola (2015) also highlight the importance of institutional policies aimed at the development of educational innovations. The authors say that academic policies intended to boost, support, finance, communicate and sustain teaching innovation in time constitute a condition of existence of innovative processes and vindicate them.

Diagnosis, Participation and Pedagogical Connection

Pizzolito and Macchiarola (2015) specify that every innovative movement begins when teachers reflect upon their teaching processes and question their actions, identifying problems, possibilities for change and a denaturalization of everyday events.

In that sense, teachers at Universidad del Atlantico have emphasized the need to have classroom diagnosis processes in place to aid innovation planning.

> "I think the first thing that needs to be done is conduct a diagnosis of students' characterization, and of our sociocultural context, based on that, I believe innovating does not imply following the traditional rules of teaching, it is putting new alternatives forward according to students' needs and interests... (Teacher "E", UA)

Innovation, insofar as a planning process with clear educational objectives, must necessarily derive from a proper valuation of the classroom students' potentialities and difficulties. Teachers and students at Universidad del Atlantico also highlight the importance of participation and communication between teachers and students in order to develop educational innovation.

> "(...) we need to keep in mind that to become innovative in education, more student participation is required, particularly of active students who create and

> transform, with the teacher as a guide (not to dictate but to lead) and paying attention to the process." (Teacher "I", UA)

> "Interacting a lot, awakening their interest with activities that demand creativity, planning and delivering extraordinary classes applying didactics." (Student, UA)

It can be inferred that for students, a favoring condition of innovation has to do with the type of class or participation proposed in a lecture or by certain teacher. This allows it to be related to the categories identified in the research on favoring factors proposed by authors Martini, Montebelli and Mancini (2009). In their research, they named one category as .positive attitudes of students., these are the attitudes of students regarding participation in different spaces and the positive response elicited by the use of new elements and strategies for their learning, these are favoring elements for educational innovation since commitment and enthusiasm lead to a proper development of the proposals by teachers' work teams.

Therefore, the lack of dialog and participation in class, as well as lack of knowledge in terms of students' learning processes (styles, strategies, ways of learning) are considered factors that thwart innovative processes, as students and teachers expressed.

> "Persisting on a traditional model when teaching class, e.g., following the same teaching methodology, focusing on content disregarding if the student is really understanding what is being taught; oftentimes things are taught but not learned." (Student, UNRC)

> "Expecting every student to learn in the same way and with the same strategies." (Student UA)

> "Failing to cover all of the learning paces." (Student, UA)

In summary, an initial diagnosis of educational situations is key to generate change. Acknowledging problems and looking for alternatives is indispensable for educational innovation. Similarly, teachers and students recognize the importance of exchanges, participation and dialog as factors that lead to innovation. Identifying the particularities in processes of building knowledge (styles, strategies and paces) is also indispensable, as mentioned by the students.

Beyond the Classroom

Most of the innovative practices identified by students involve projects outside the classroom. Participants mention educational proposals that are associated with social and community practices, research projects, fieldwork and internships. These proposals, aside from being articulated with subjects' curricular content, pertain to concrete actions in contexts outside the classroom.

> "For example, a social and communal practice conducted for a subject was true innovation, it implied connecting the student with the environment, with its needs, and students had to respond and assemble work groups and other things, it did come out as an innovation." (Teacher "3", UNRC)

> "Participation in educational projects. In small internships, workshops, seminars." (Student, UNRC)
>
> "Practice, field work, videos, conferences, workshops, etc." (Student, UNRC)
>
> "Working in groups in order to do research and going places to get the information." (Student, UNRC)

Other studies (Elisondo, Donolo and Rinaudo, 2009; Elisondo and Donolo, 2015; Elisondo and Melgar, 2017) also show that proposals beyond the classroom become spaces for creativity and innovation, insofar as they entail complex problem-solving processes and looking for alternatives. Proposals that go beyond the classroom allow building knowledge based on an articulation between theories and concrete practice. Surveyed students agree on the fact that extracurricular activities -largely- contribute to their training, allowing them to acquire theoretical knowledge and to practice procedures and attitudes. Those who engage in extension projects highlight its significance since these are opportunities to attain diverse experiences and theoretical and practical knowledge. Moreover, they consider that motivations that lead them to these activities go beyond personal interests, social and communal contributions are students' main goals. Activities in real contexts generate interactions with other people and objects of knowledge, they enable questioning academic knowledge and generate full learning interacting with genuine problems. In that regard, the value of social and communal practices being genuine learning spaces in diverse social territories is noticeable (Macchiarola and Juarez, 2014; Tarifa, 2013).

Innovation and Technologies

Participants convey different thoughts when it comes to the connection between innovation and ICT. While some consider it indispensable to generate innovative processes in the university, others question its effectiveness in cases when the use of technology is not assisted by change-oriented goals; in other words, the mere incorporation of technologies does not guarantee innovation. Changes depend on the actors' perspectives and on defined educational objectives.

> "Look, not everything needs to be about technology, (...) for instance, technologies applied to disability, right?, they need to know that there are support technologies for different requirements and needs concerning people's autonomy, independence, access to information, communication, but I can't offer it because the institution lacks a laboratory, it should have a more complete laboratory and not just provide access to a computer." (Teacher "A", UA)
>
> "Well, there is no necessary connection, you can be taught in the same way, in a way in which technology is just an ornament and makes practice more pleasant. Or I do believe technologies offer an interesting potential for innovation, used well, using its potential, it can be a platform for innovation (...) it breaks the linearity of learning, the students' possibility to learn beyond the classroom and academic times, this implies ruptures in spaces and times of learning." (Teacher "1", UNRC)

Most students at UA perceive technology as a tool that fosters innovation and acknowledge its value in current society. Students, particularly at UA, considered ICT as a favoring factor for innovation because they argue that it allows them to be more connected with their teachers and to assume a more leading role in their learning.

> "When a teacher had to travel somewhere, classes did not stop, technology enabled us to connect and go on with it (...) aside from helping the teacher students also learned to be more responsible." (Student, UA)

> "New technologies have a fundamental impact on society today, I believe teachers need to use them more." (Student, UA)

However, participants also perceive obstacles involving access to technologies and the underlying objectives of incorporating these resources. Meaning that if educational practices continue to apply approaches that allocate a passive role to the students and a technology-transmitter role to the teachers, it will only encourage processes of reproduction and will fail to generate spaces for innovation. Sierra-Llorente, Palmezano-Cordoba and Romero-Mora (2018) point out difficulties related to the incorporation of ICT to educational processes: lack of infrastructure and financial resources to install and maintain equipment, need for continuous training by the teacher and capacity of using current resources and programs.

> "Constant use of PowerPoint to teach classes is not helpful, it means directly reading from the file and does not add new information." (Student, UNRC)

> "Lack of resources and access to technology is an obstacle for innovation." (Student, UA)

There are diverse stances on the use of ICT. ICT has enabled other ways of learning, other means of transmitting information, massive diffusion, new spaces of learning, a different type of interaction between teacher-student, new learning strategies, styles and techniques. Technologies enhance interaction possibilities between people and access to diversity of knowledge (Dussel and Reyes, 2018). Likewise, it allows communicating in different time and spaces, easing innovative processes that rupture ways of learning and teaching. This study agrees with its participants in the fact that technologies can contribute to the development of innovation only if they are supported in beliefs and objectives that aim to transform ways of teaching and learning. It is also deemed necessary for educational institutions to generate transliteracy (Ipri, 2010) to integrate technologies into the complex teaching and learning processes taking place in universities (Elisondo and Donolo, 2014).

Discussion

Participants thoughts give an account of the complexity of innovative processes and of the multiple decisive elements that interact in educational change. Most testimonies link educational innovation with ideas of changing, improving, transforming, breaking traditional

structures. Teachers and students agree on the significance of implementing innovation in university classes to steer away from traditional practices that cause monotony for teachers and demotivation for students.

Teachers mostly identified the following as favoring aspects: teacher training, research in innovation to produce more innovation, teamwork and institutional policies. In terms of the hindering aspects: institutional policies involving bureaucratization appear to be problematic. They also stress lack of time in connection with multiple tasks, resistance to change by their students, teacher training cost -for Colombian teachers- and large groups of students in their subjects.

In terms of their experiences with teachers in the classroom, students consider that some still adhere to a traditional educational model; they add that others have a constructivist discourse but continue acting in a traditional way. On the other hand, they recognize that some teachers assume a guiding position in the teaching-learning process, offering available tools to streamline this process. Students also think the following are positive aspects to develop educational innovation processes: incorporation of ICT, practices in extracurricular spaces (e.g., internships, seminars, workshops, among others) and an exchange of information with other professionals or areas of knowledge.

Social and communal practices, research incubators, internships, extension projects all seem to generate innovative teaching and learning contexts that steer away from traditional practices and enable complex processes of building knowledge that articulates with reality. It is clear that these aspects are part of the innovative proposals aimed at enhancing the learning process. Regarding the negative aspects, students point out the traditional stance of their teachers when teaching, bureaucratization of information, fear and resistance to change, and ICT used improperly as the main obstacles for innovation.

Future research lines could extend the topic of educational innovation by studying professional practices in different bachelor's degree programs. It would also be interesting to inquire into perceptions of teachers and students of evaluations in innovative contexts. Further studies would need to include in-depth analysis of the role of ICT in innovation taking place in universities. Likewise, it would be necessary to build processes of methodological triangulation to reach more solid interpretations in terms of innovative processes in universities.

Despite being limited and enclosed to a particular sample, the knowledge herein offers interesting research and intervention lines for the design of innovation in universities. Acknowledging the conditions that facilitate and hinder processes is relevant for devising new transformative proposals. Reflecting about innovation and generating alternative spaces to teach and learn in universities constitutes a permanent challenge for teachers, researchers, and educational policy managers.

REFERENCES

Creeswell, J., & Poth, C. (2007). Qualitative Inquiry and Research Design: Choosing among Five Approaches. Londres: Sage publications.

Delgado-Coronado, S. (2019). Perspectivas en torno a la formación docente y la posibilidad de una capacitación y actualización constante: una mirada desde los actores de una universidad mexicana. Revista Panorama, 13(24), 34-41. Recuperado de: https://journal.poligran.edu.co/index.php/panorama/article/view/1204

De la Barrera, S. (2007). Colaboración entre profesores ¿Quién dice que es fácil? Colección de Cuadernillos de actualización para pensar la Enseñanza Universitaria. Río Cuarto: Universidad Nacional de Río Cuarto. Recuperado de: https://www.unrc.edu.ar/unrc/academica/docs/publicaciones/delabarrera-may07.pdf

Dussel, I. & Reyes, B. (2018) ¿Nuevas formas de enseñar y aprender? Las posibilidades en conflicto de las tecnologías digitales en la escuela. Perfiles Educativos, 40(Especial), 142-178. Recuperado de: http://perfileseducativos.unam.mx/iisue_pe/index.php/perfiles/article/view/59182

Elisondo, R., Donolo, D., & Rinaudo, M. (2009). Contextos de educación en la universidad: perspectivas de los alumnos potencialmente más creativos. Revista Iberoamericana De Educación, 49(6), 1-11. Recuperado de: https://rieoei.org/RIE/article/view/2054

Elisondo, R. & Donolo, D. (2014). Creatividad y alfabetización informacional. El desafío en cuatro propuestas. Panorama, 8(15), 23-33. Recuperado de: https://journal.poligran.edu.co/index.php/panorama/article/view/547

Elisondo, R. & Donolo, D. (2015). Creatividad en la Universidad. Cuadernos de Educación. Tenerife: Sociedad Latina de Comunicación Social. Recuperado de: https://issuu.com/revistalatinadecomunicacion/docs/cde04

Elisondo, R. & Melgar, F. (2017). Creatividad y Universidad. Estudios más allá de los muros. Málaga: Eumed. Recuperado de: http://www.eumed.net/libros/img/portadas/1668.pdf

Ipri, T. (2010). Introducing transliteracy. What does it mean to academic libraries? College & Research Libraries News, 71(10), 532-567

Libedinsky, M. (2016). La innovación educativa en la era digital. Paidós: Buenos Aires.

Macchiarola, V. & Juárez, M. (2014) Experiencias de prácticas socio-comunitarias en la universidad. Recorridos, emergencias y desafíos de una innovación pedagógico-social. Río Cuarto: UNIRIO Editora.

Martini, C., Montebeli, E., & Mancini, A. (2009) Las condiciones facilitadoras y obstaculizadoras de innovación en la universidad. En Macchiarola, V.: Rupturas en el hacer y el pensar. Río Cuarto: UNIRIO Editora.

Medina, J., & Navío-Gámez, A. (2018). Concepciones sobre innovación educativa. ¿Qué significa para los docentes en Chile? Profesorado, Revista de Currículum y Formación del Profesorado, 22(4), 71-90. Recuperado de: https://revistaseug.ugr.es/index.php/profesorado/article/view/8395

Norman-Acevedo, E. (2019). Nuevos lenguajes para aprendizaje virtual, herramientas para los escenarios de aprendizaje. Revista Panorama, 13(24), 5-7.

Pizzolito, A., & Macchiarola, V. (2015) Un estudio sobre cambios planificados en la enseñanza universitaria: origen y desarrollo de las innovaciones educativas. Innovación Educativa, 15 (67), 111-134. Recuperado de: http://www.scielo.org.mx/scielo.php?script=sci_arttext&pid=S1665-26732015000100007

Rivas, A., André, F., Delgado, L., Aguerrondo, I., Anijovich, R., Furman, M., ... & Vota, A. (2017). 50 innovaciones educativas para escuelas. Lima: Centro de Implementación de Políticas Públicas para la Equidad y el Crecimiento. Recuperado de: https://www.cippec.org/wp-content/uploads/2017/08/978-950-46-5369-1-CIPPEC-50-Innovaciones-educativas.pdf

Sierra-Llorente, J., Palmezano-Córdoba, Y., & Romero-Mora, B. (2018). Causas que determinan las dificultades de la incorporación de las TIC en las aulas de la clase. Revista Panorama, 12(22), 32-41. Recuperado de: https://journal.poligran.edu.co/index.php/panorama/article/download/1064/1037

Soneira, A. (2006). La teoría fundamentada en los datos (Grounded Theory) de Glaser y Strauss. En Vasilachis, I.: Estrategias de investigación cualitativa (pp.153-173). Buenos Aires.

Tarifa, R. (2013). Incorporación de las prácticas socio-comunitarias al currículo universitario. Revista Contextos de Educación, 13(15), 39-46.

UNESCO Perú. (2016). Innovación educativa. Herramientas de apoyo para el trabajo docente. Lima: UNESCO. Recuperado de: http://repositorio.minedu.gob.pe/bitstream/handle/MINEDU/5135/Innovaci%C3%B3n%20educativa.pdf?sequence=1

Zabalza, M. (2003) Innovación en la enseñanza universitaria. Contextos Educativos. Revista de Educación, 6, 113-136.