



Current Education, An Innovative Change To Improve University Education Through Innovation And Collaborative Work

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ABSTRACT

Education must migrate to issues that today's society demands, attending to present and future scenarios in order to provide efficient and effective solutions. The study aims to demonstrate that collaborative work impacts the personal, educational and work relationships of students. The work is supported by quantitative data applied to an enrollment of 70 university students. As an innovation, the strategies that are implemented to enhance the abilities and skills of the students are elucidated. In Amazcala, 45% of respondents say that teachers are not up-to-date, 52% of the sample alludes that educational innovation does not help promote collaborative work, and 83% mentioned that they have never managed innovation in class. In this sense, innovation, collaborative work, communication and the use of technology are factors that have a direct impact in the educational field because through them the student can acquire a full development in his school career and in the workplace, what permeates the path that current education must follow to develop favorable knowledge in students who are about to enter the professional field.

Key words: Communication, Current Education, Innovation, Collaborative Work, University.

INTRODUCTION

Within the educational sector, a system is proposed that encompasses multiple factors, reforms and approaches to work within the various levels of education that exist; However, speaking of Higher Level implies putting into play multiple elements, which serve as the main engine for students to develop their abilities, skills and expand their knowledge in order to be able to face different scenarios that exist outside the University.

Today, digital education is emerging as the most used tool by young university students who spend most of their time interacting on their social networks or carrying out an interaction through the various social applications that the technological era has generated. Higher Level education in the municipality of Amealco must try to interfere in the digital age, innovate its teaching tools and promote collaborative work in young university students so that they are able to enter the labor market quickly and without problems, realizing of the importance of teamwork.

THE CURRENT SITUATION OF UNIVERSITY EDUCATION

There are many educational reforms that have emerged in Mexico, however, all aim to improve the situation of university students in the understanding that they manage to acquire sufficient knowledge to face the problems of the world of work. Paris (2010) says that education at the University must promote diverse perspectives such as innovation and collaborative work where students obtain various tools that allow them to face their immediate context to provide solutions to the problems that arise. But, strengthening and optimizing them will require managers to have the ability to empower everyone's passion, creativity and innovation to enhance their development.

Given this, the Ministry of Higher Education (2007) states that the training process of the new educator is based on a Pedagogy that places the subject as the center of the educational task, taking into account the dynamic, leading and transforming role, not only of the student, but of all the actors immersed in this process, that is to say, the universities must try to generate an apprenticeship based on real scenarios, because in the end, graduates will have to enter the workplace to be able to exercise their profession.

Regarding coverage in higher education, the Center for Educational Studies (2012) said that Peña Nieto assured "Increase coverage in higher education to at least 45%, to offer 1.5 million new places in the country's universities." Undoubtedly, the President of the United Mexican States gave a comprehensive education for all levels, always seeking the welfare of students, however, he did not mention the actions to be taken to improve the various educational levels in Mexico.

Communication, an important tool in the University

It is known that communication is the main tool of human beings to exchange information and achieve a broader discernment, because through verbal interaction, doubts are clarified and new knowledge is generated in order to occupy it in specific situations that are required. In this sense, communication within universities should be the main factor that helps students create meaningful learning, where doubts are clarified through dialogue. Given this, Brönstrup, et al. (2007) mention that the interaction between the culturally situated human being and cultural objects foster the development of motives and perceptions of one another, that share and create common understandings, in which language promotes dialogue between consciences.

Following this idea, Villalobos (2011) mentions that Lazarsfeld and Merton warned that "the ubiquity of the mass media produces an almost magical faith in its great power". However, for Grupo Comunicar (2003), the creation of interrelation spaces between these social sectors is essential to be able to advance effectively in communication education and to project global communication education in different directions.

Finally, the Monterrey Institute of Technology and Higher Studies (ITESM) (2012) states that the organization, accompanied by the practice and action of projects based on the recognition of the environment, the social situation of the subjects and the processes of communication. If you want to promote quality education at the higher level, it is necessary and, to some extent mandatory, the creation of an ideal communication environment between teachers and students.

Do education and universities really fulfill their teaching role?

The National Polytechnic Institute (IPN) (2006) mentions that the main characteristic of the so-called Higher Education System (SES) is its heterogeneity, both in terms of age, size, educational offer and nature of the institutions that comprise it, as well as its presence and impact in the national territory. In this sense, Clavero, et. Al. (2015) mentions that Universities are institutions at the service of the nation; which forces university social actors to accompany in the solution of the most recurring needs in the community. However, now it is the turn of the university community in general and of students, in particular, to accept and seek promotion and the type of strategies in students that are based on traditional models, to adapt to the situation of having new classmates with different customs and habits due to physical bodily features and way of speaking or people of origin, including another language to which they were already familiar (Gutiérrez, 2014).

Effectiveness of innovation in education

Innovation is thought to be related to technological issues, but the reality is different, the innovation is aimed at promoting more real teaching, that is, contextualized to the school zone and the problems that may arise outside the classroom. Innovation is then a planned change towards the development of pedagogical possibilities, which assume the function of education as a transmitter of a cultural selection of knowledge of society, in which the educational institution is immersed. The challenge for the innovative teacher in his pedagogical practices consists in the use and application of educational technology (Miranda, 2005). This is how Dueñas (2010) says that educational systems are affected by the changes in society in which they are immersed, and reciprocally. In recent decades, it is worth highlighting how the convergence of variables of different nature (historical, philosophical, political and social), has posed new challenges for school systems, influencing their organization and operation. For his part, Wasserman (2012) mentions that the economic circumstances of the world, globalization, the proliferation of FTAs and the new knowledge society have made fashion innovation. Actually, it is somewhat surprising that this fashion is so recent, because economists have long reflected on it; Additionally, the author states that in 1979 the American competitiveness guru Michael Porter said that the competitiveness of a nation depends on the ability of its industry to innovate and improve, and companies gain competitive advantages if they succeed in innovating.

Technology and collaborative work, tools that must be implemented at the university

There are many questions that must be considered at the University because it is the last step for future professionals, that is, when they graduate they will have to face real scenarios that demand immediate and efficient responses to solve the problems that arise. Despite the fact that universities are organized to deliver information, the new demands force us to transform our students and avoid offering them only additional information. That is why it is said that "transforming means helping the student to discover and become a new being, capable of understanding and leading change" (Salazar and Chiang, 2007: S / D).

Taking into account this transformation that is sought to be created in Higher Education, Maldonado (2008) mentions that project-based learning is an important part of the learning process. This concept becomes more relevant in today's society, in which teachers work with heterogeneous groups of students, who have different learning styles, ethnic and cultural backgrounds and skill levels, causing an innovation because it must be made clear to each One the subject to be reviewed.

Regarding the technology that must prevail in universities, Salazar and Chiang (2007) affirm that competency-based education is linked to educational technology, the systemic approach and the technological curriculum approach, therefore, the use of technology is considered technology. these tools in teaching to develop meaningful knowledge that helps them in the professional field.

Based on the above, Area (2008) says that it is evident that one of the most substantive challenges in the short and medium term of any educational policy on school integration of ICT should be the generalization among teachers of a pedagogical model that justifies and of sense to the teaching and learning practices that are developed with computers in schools and classrooms so that the technologies are used in an innovative perspective from a psychodidactic point of view.

Finally, Montalvo (2011) comments that one of the fundamental strategies to contribute to the opening of the higher education system and strengthen cooperation between institutions and groups, is collaboration through networks, whose work leads to the generation, management and knowledge socialization. Higher Education must take hold of tools that allow it to offer quality teaching, which aims to improve the discernment that students acquire in the classroom, and therefore, technology and collaborative work are perfect for creating a learning that helps them address current and future problems.

El problema de la educación actual en las universidades

Current education must contemplate the multiple scenarios that are constantly presented, which address the problems of various scenarios that can be found in the professional field. In this sense, Higher Level education should aim at the full development of the students attending to the needs that this implies, however, many educational institutions do nothing to improve the teaching-learning process or address the concerns of the students.

In this sense, the Center for Educational Studies (2013) mentions that Mexican society is not a functionally integrated harmonic system; on the contrary, it is a society of great contrasts, with strong latent conflicts due to the divergence of interests of its various sectors.

The new scenarios must be understood as visions of possible learning environments, today fostered by new technologies, which help to design and create different environments that are appropriate to the new spatio-temporal coordinates, to new educational objectives, etc., which involve to students, teachers, institutions, programs, the occupational structure, the community, the world regions, etc. (Fainholc, 2010: S / D)

Perhaps technological applications are becoming learning environments within educational institutions, where teachers and students make use of them to exchange information and generate knowledge; however, in the Amazcala community, technology is not favorable because the internet signal is weak. Given this, teachers must make use of innovation; that is, to expand or even renew

the tools available to them to create an enriching, interactive and interesting education for apprentices, aimed at developing their skills.

METHOD

The research proposed is of a quantitative nature because we sought to obtain data that measured innovation and collaborative work in current education, and for this, the survey technique was used. The data was collected in February 2020. The population to which the research instrument was applied was in a Higher Level Educational Institution, located in the community of Amazcala in the state of Querétaro, with an enrollment of 70 university students studying the Agroindustrial Engineering Degree. The following table details the situation of Higher Level students.

Table 1. Higher Education student population

Semester	Mens	Women
1°	7	8
2°	5	1
3°	5	2
4°	3	3
5°	2	7
6°	1	2
7°	6	2
8°	1	1
9°	4	3
10°	6	1
Total	70 students	

Source: Self made

RESULTS

Below are the results obtained from the application of the survey to students of the Autonomous University of Querétaro Campus Amazcala, where the impact of higher-level education is elucidated.

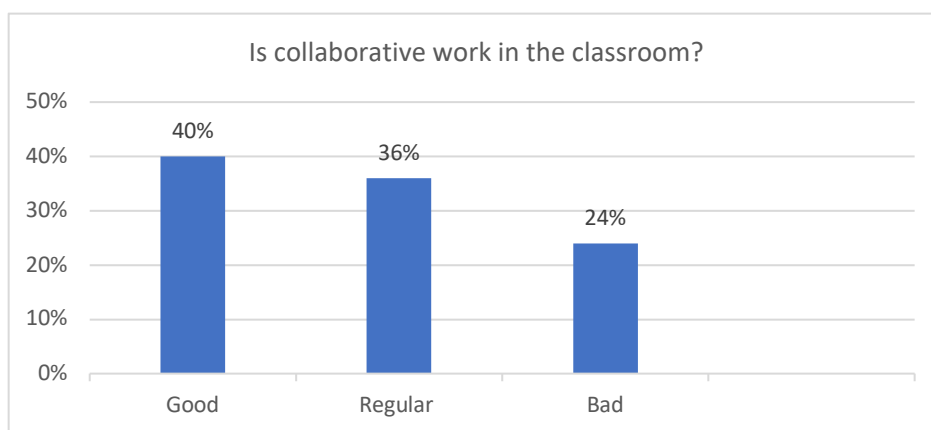


Figure 1. Promotion of collaborative work

Source: Self made

Based on figure one, the sample selected to find out if collaborative work is promoted within the classroom, showed that 40% affirm that it is good to implement it, 36% argue that it is regular and 24% mention that it is bad. try to encourage collaborative work within the classes.

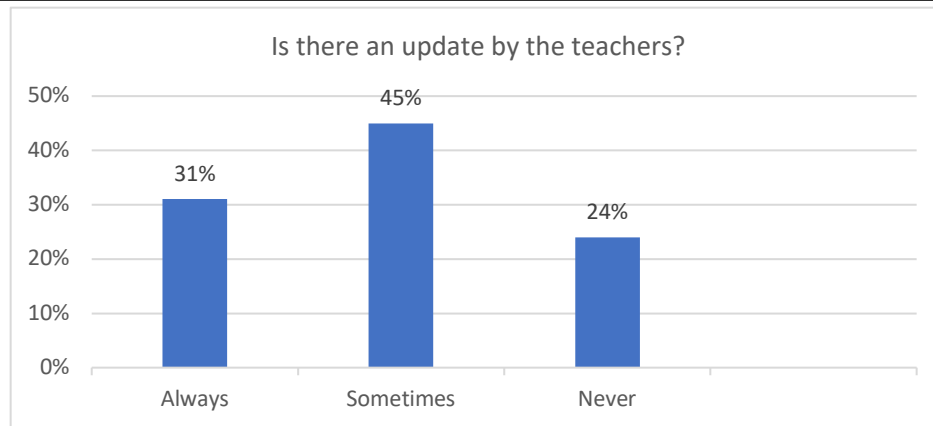


Figure 2: Teaching update

Source: Self made

Figure two addresses whether teachers are updated to offer an interactive and quality education for university students, before this 31% comment that teachers always worry about updating to offer a broad educational background, 45% affirm that only sometimes they are updated and only 24% said that the professors have never bothered to update to provide a better education, they come to the classroom and transmit only information.

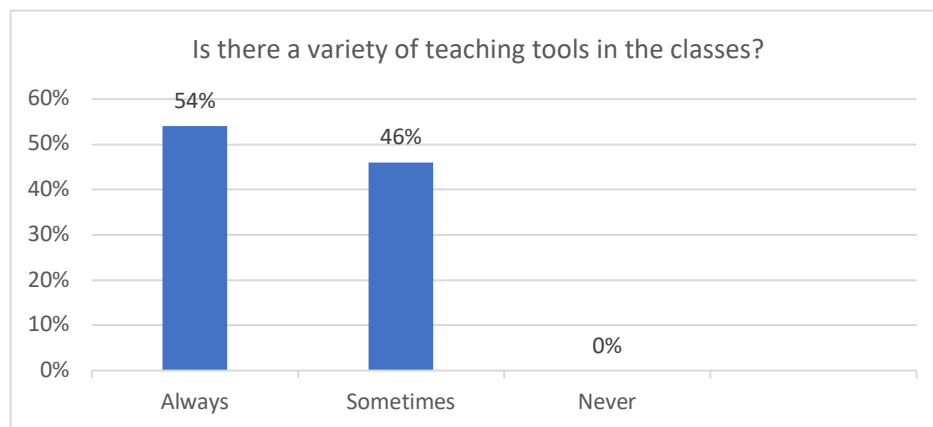


Figure 3. Teaching tolos in the classroom

Source: Self made

Within figure three, 54% of the surveyed population records that their teachers always use diversity in their teaching tools within the classroom, allowing their students to project themselves as an active individual. However, representing 46% of the remaining population, they argue that only sometimes teachers provide various teaching tools within the classroom that make the student become active.

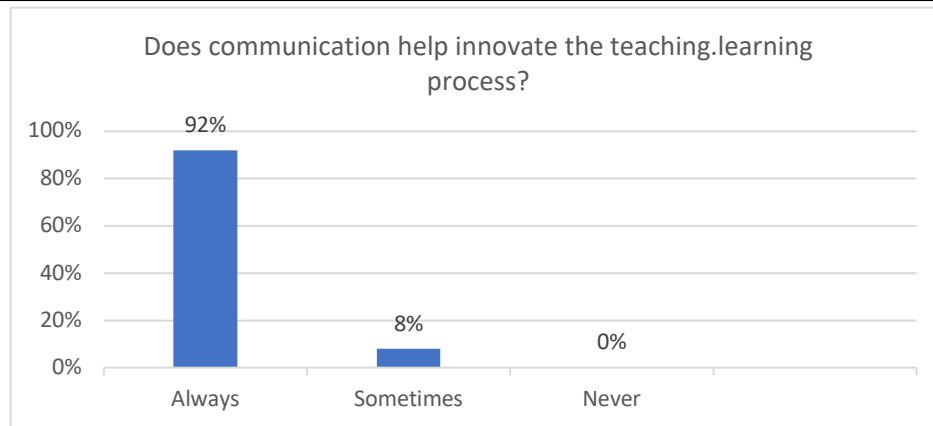


Figure 4. La comunicación en Educación de Nivel Superior

Source: Self made

Figure four shows that the surveyed students identify communication as a relevant factor, and a result of 92% was obtained, registering that communication is always important as a means of innovating in higher education and getting students to participate in the development of their knowledge. While 8% of the participants decided that only sometimes is communication essential to innovate and achieve student participation.

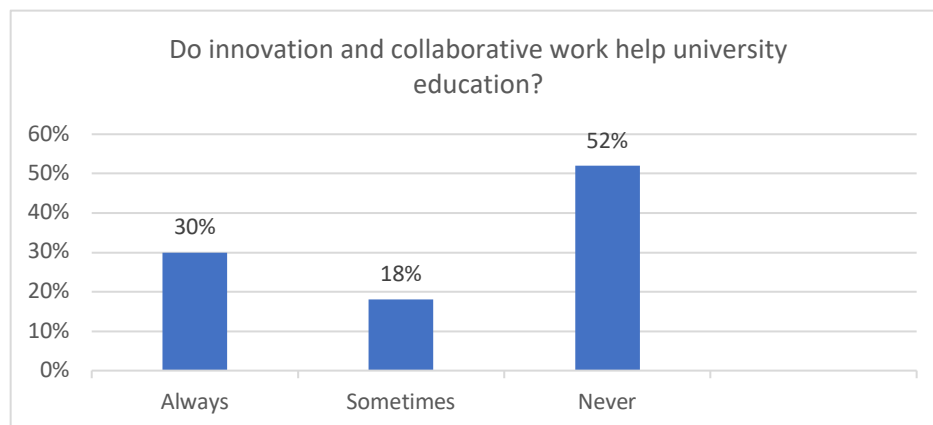


Figure 5. Educational innovation and collaborative work at the University

Source: Self made

Based on figure five, of the surveyed population 52% suggest that innovation does not help foster collaborative work in higher education, 18% say that only sometimes does innovation help to generate teamwork, and 30% of respondents think that innovation will always be helpful to promote work between two or more subjects within the university.

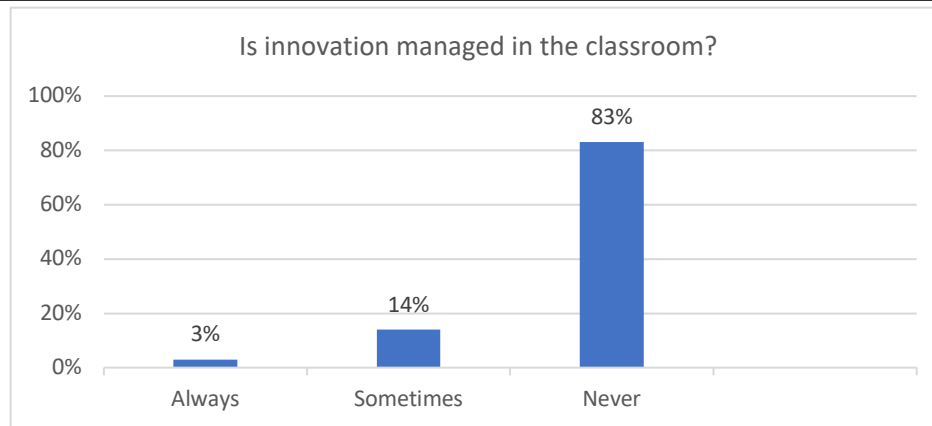


Figure 6. Management of educational innovation

Source: Self made

Taking figure six into account, 83% of respondents show that within higher education, teachers never manage innovation during classes, while 14% showed that only sometimes teachers show their management; however, the remaining 3% say that teachers are always concerned with innovating within the delivery of their professorship.

DISCUSSION

Based on the previous results, it is envisioned that university education must walk under the edge of constant innovation, that is, seek the tools and strategies necessary to face current and future scenarios that demand trained and competent professionals to solve problems. that they arise. In this sense, Sánchez, Caggiano and Hernández (2011) mention that one of the objectives that the university has today is to collaborate with society with job creation. For this, it is necessary to transfer the knowledge and technology that the universities possess, thus favoring cultural change in the population, since this is a good way of returning to society the (human and economic) investment that the university receives.

Talking about educational innovation and collaborative work at a Higher Level consists of determining the activities, strategies and other tools that are used to enhance the knowledge, abilities and skills of the students, fostering in them the willingness to work as a team inside and outside the institution. educational so that they are able to face the different situations that appear in the scenarios where they interact in an innovative way, because this is what current education demands.

It may be the case that a factor that causes a setback is the little use of technology because we live in an era where technological issues are dominating the work of the human being, but sometimes the local conditions are not adequate to promote the various technological tools that help to generate knowledge, however, the teacher must hold on to all the complements he needs to offer innovation and classes grounded in the current context, in this way the student will become an efficient professional in the world of work.

CONCLUSION

The current education must be outlined to attend to the needs that arise from the current society, since it is they who give the professionals responsibilities so that they put into practice the

knowledge, abilities and skills that they acquired during their stay at the University. Within the teaching-learning process, it is estimated that education will be involved in various teaching tools such as case studies, exercises, problem-based learning, among others, but referring to collaborative work issues because current education seeks to train professionals capable of working under pressure and interact with different areas or personnel so that together they achieve the goals and objectives proposed by the companies.

An important aspect to consider are the educational reforms, which are modified every six years because the president who is elected, considers that he must carry out a change in the educational field because he envisions a lacking education, however, what concerns everyone is that educational institutions, regardless of their level, must strive for the full development of the students so that they achieve the competencies, abilities and skills necessary to face the present and future scenarios that they must constantly live through.

In this sense, the higher-level institution located in Amazcala leaves much to be said, first the teachers do not constantly update themselves to teach their classes, data according to 45% of the respondents, second, 52% of the sample alludes that innovation Education does not help promote collaborative work and, lastly, 83% mentioned that professors have never managed innovation in their classes.

Based on the above data, it is unavoidable that the teaching staff slightly modify their work in the delivery of their chair. For this reason, considering the results obtained, it is necessary to implement in Amazcala higher education a culture where teachers foster a commitment and collaborative attitude so that they can in turn transmit teamwork training in their teaching, using tools that are not necessarily technological due to the context, but dynamics that allow to make a session something interactive and interesting that results in the union of people, knowledge and learning to fill in situations of various kinds. Finally, it should not be forgotten that students who know how to work in a team will be able to position themselves in any corporate once they graduate because order, respect and discipline were encouraged from the university to carry out their activities and collaborate with others for an end in common.

References

- Area, M. (2008). Pedagogical innovation with ICT and the development of informational and digital skills. In-School Research Magazine, 64, 5-18.
- Brönstrup, C. and Godoi, E. (2007). Communication, language and organizational communication. Sign and Thought, 26 (51), 26-37.
- Center for Educational Studies, A.C. (2013). Research for an educational reform: process and product. Latin American Journal of Educational Studies, 43 (4), 135-141.
- Educational Studies Center. (2012). Observatory of the educational proposal of the candidates for the Presidency. The educational proposal in Enrique Peña Nieto's campaign. Latin American Journal of Educational Studies, 42 (3), 91-133.
- Clavero, J, Tianure, M, Tsopanas, E, Urdaneta, S, Useche, J. (2015). Comparison of previous knowledge in two cohorts of professional practice students II. Education. Clinical Research, 56, 727-772.
- Dueñas M. (2010). Inclusive education. Spanish Journal of Orientation and Psychopedagogy, 21 (2), 358-366.
- Fainholc, B. (2010). Digital scientific-technological training in higher education. RUSC. Universities and Knowledge Society Journal, 7 (2), 1-11.

Communicate Group. (2003). Communication education. *Communicate Magazine*, 20, 195-198.

Gutiérrez, F. (2014). Inclusion in Higher Education: Challenges and Myths. *Hereditaria Stomatological Magazine*, 24 (1), 3-4.

National Polytechnic Institute (IPN). (2006). How are we in higher education? *Educational Innovation*, 6 (31), 1-9.

Instituto Tecnológico y de Estudios Superiores de Monterrey (ITESM). (2012). Communication as a value of social development. *Reason and Word Magazine*, 17 (80).

Maldonado, M. (2008). Collaborative Project Based Learning. An experience in Higher Education. *Laurus Education Journal*, 14 (28), 158-180.

Ministry of Higher Education. (2007). National educator training program. *Educere*, 11 (38), 546-555.

Miranda, C. (2005). Permanent training and innovation in pedagogical practices in basic education teachers. *Pedagogical Studies*, 31 (1), 63-78.

Montalvo, J. (2011). Innovation in higher education Anticipating the future? *Legal and Economic Yearbook of Escurialense*, 44, 567-578.

Paris, R. (2010). Planning and Innovation. *Latin American Administration Notebooks*, 6 (11), 5-6.

Salazar, C. and Chiang, M. (2007). Competences and Higher Education. An empirical study. *Educational Horizons*, 12 (2), 23-35.

Sánchez, J, Caggiano, V, Hernández, B. (2011). Entrepreneurial skills in university education. *International Journal of Developmental and Educational Psychology*, 3 (1), 19-28.

Villalobos, O. (2011). Communication as knowing. *Academic Quorum*, 8 (1), 5-8.

Wasserman, M. (2012). Innovation with knowledge. *Colombian Journal of Livestock Sciences*, 25 (4), 537-538.