PEDAGOGICAL INTERVENTION IN QUALIFICATION PROCESSES AT THE NATIONAL PEDAGOGICAL UNIVERSITY (MEXICO)

INTERVENÇÃO PEDAGÓGICA NOS PROCESSOS DE QUALIFICAÇÃO NA UNIVERSIDADE PEDAGÓGICA NACIONAL (MÉXICO)

INTERVENCIÓN PEDAGÓGICA EN PROCESOS DE TITULACIÓN EN LA UNIVERSIDAD PEDAGÓGICA NACIONAL (MEXICO)

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ABSTRACT: The systematization of the intervention experience that is presented arises as a proposal to increase the graduation rates in the degree in pedagogy (hereinafter LP) of the National Pedagogical University (UPN) Ajusco Unit. It involves the design and development of a course that takes place over two semesters. This course is supported by a virtual support, mounted on a Moodle platform. The overall objective is for students to design and develop a degree project. The course begins with 30 students and has four advisers and a full professor. This presentation describes what the course consists of, how it has been developed and the achievements that have been made so far.

KEYWORDS: Pedagogical intervention. Titling project. Virtual course. Theoretical framework. Methodology.

RESUMO: *A sistematização da experiência de intervenção que se apresenta surge como uma proposta para aumentar as taxas de graduação na licenciatura em pedagogia (doravante LP) da Universidade Nacional Pedagógica (UPN) Unidade Ajusco. Envolve a concepção e desenvolvimento de um curso que se estende ao longo de dois semestres. Este curso é apoiado por um suporte virtual, montado na plataforma Moodle. O objetivo geral é que os alunos elaborem e desenvolvam um projeto de graduação. O curso começa com 30 alunos e conta com quatro orientadores e um professor titular. Esta apresentação descreve em que consiste o curso, como foi desenvolvido e os resultados alcançados até agora.*

PALAVRAS-CHAVE: *Intervenção pedagógica. Projeto de titulação. Curso virtual. Quadro teórico. Metodologia.*

RESUMEN: *La sistematización de la experiencia de intervención que se presenta surge como propuesta para incrementar los índices de titulación en la licenciatura en pedagogía (en adelante LP) de la Universidad Pedagógica Nacional (UPN) Unidad Ajusco. Se trata del diseño y desarrollo de un curso que se desarrolla durante dos semestres. Este curso cuenta con el apoyo de un apoyo virtual, montado sobre una plataforma Moodle. El objetivo global es que los estudiantes diseñen y desarrollen un proyecto de titulación. El curso inicia con 30 estudiantes y cuenta con cuatro asesores y un docente titular. En esta ponencia se describe en*

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qué consiste el curso, cómo se ha venido desarrollando y los logros que, hasta el momento, se tienen.

PALABRAS CLAVE: *Intervención pedagógica. Proyecto de titulación. Curso virtual. Marco teórico. Metodología.*

Introduction

This article is the report of the advances that have been made up to the moment of a pedagogical intervention process that is done with the objective of increasing the graduation rate in pedagogy (LP) of the UPN, in the Ajusco Unit.

The low degree rates show a problem that is associated with the lack, on the part of graduates, of theoretical and technical tools to carry out the process that requires the preparation of the written document to obtain the corresponding degree. Theoretical tools refer to the set of intellectual skills that allow students to present a study problem and be able to solve it in an argumentative way. On the other hand, technical tools are related to the previous ones, but are more oriented towards competencies related to full reading and academic writing.

The intervention carried out here seeks to solve the problems presented by the students in order to design and develop an undergraduate project. The intervention consisted of the design and operation of a seminar that operated, for two semesters, with the support of the Moodle platform. It was not just about developing a virtual course, but the work is located in what has been called b-learning, which is nothing more than the combination of *face-to-face* and virtual education.

The reason the Moodle platform is used is because it is considered that in it you can create and adapt teaching materials using ICT to make the course more attractive and interesting for students. Similarly, the platform allows the student to have, at all times, the materials and explanations of what to do. The platform, above all, is used "outside the classroom", in such a way that class time (face-to-face) was used to analyze and feed the elaborations that the students made. Here is applied the concept of "inverted classroom", which consists of transferring, to the outside of the classroom, the majority of the individual activities of students, supported by emerging technologies, take advantage of time in the classroom, to generate a dialogue, open and transparent, that serves to analyze and feed, the products that students make at home. It is about seeking to maximize the interactions between teacher and student and between them (RIVERA; GARCIA, 2018).

The central idea of pedagogical intervention is to propose to the student the need to perform learning tasks based on reading and writing that respond to the requirements of what an undergraduate project should have in the LP of the UPN, in the Ajusco Unit. Similarly, it is a question of making public interventions where improvements are analyzed and recommended to the elaborations made by each of the students. Each learns from the successes or mistakes of the companions.

This paper is structured in four parts. The first talks about the diagnosis, the second about the design, the third about the development and in the fourth dives into the analysis of the intervention. Finally, a series of reflections are listed as conclusions of the work.

Delimitation of the problem

To be clear about the aspects around what work would be done to ensure the design and development of a graduation document, a list of the elements that, according to the LP, the reception work must have been done. The list is as follows:

- Elements that constitute a project.
- Description of the problem.
- Delimitation of the problem.
- Construction of the main issue.
- Approach to objectives.
- Locate the project in some kind of specific methodology.
- Establish the central categories in the delimitation of the problem.
- Development of the theoretical framework.
- The definition of the universe and the sample will serve as an empirical reference for data collection.
- Selection of instruments for data collection.

Characterization of the intervention group

- We work with a group of 30 students.
- 23 (76%) had students between 20 and 25 years old.
- 26 (86%) were women.

- 14 (46) working in the workplace.
- 21 (70%) live with their parents.
- 20 (66%) have internet connection in their homes.
- 26,886%) has a home computer.
- 14 (46%) take more than 2 hours to move from home to college.
- 23 (76%) live in family members who earn less than $500 a month.
- 27 (90%) or public transportation to get to university.
- 2 (6%) have parents who have a college degree.
- 9 (30%) only use the university library to do school work.
- 5 (16%) use only one internet to obtain books or texts for school work.
- No one devotes more than 15 hours a week to doing school work.
- 29 (96%) know how to use Word.
- 5 (16%) were enrolled in an online course.

Diagnosis

When applying the exam to the participants about the knowledge they had about the elements that an undergraduate project should have in the UPN LP, the following average of points of note for each of the questions was obtained:

- Elements constituting a grade design (32/100).
- Description of the edition (30/100).
- Delimitation of the problem (28/100).
- Construction of the inquiry question (32/100).
- Approach to objectives (31/100).
- Locate the project in some kind of methodology (20/100).
- Establish the central categories in the delimitation of the problem (25/100).
- Development of the theoretical framework (29/100).
- The definition of the universe and the sample will serve as empirical reference (16/100).
- Selection of tools for data collection (26/100).

The average score obtained by all students was 26/100

Intervention project

It was established that the course content was organized into four main sections that also corresponded to the blocks that the undergraduate project should have: the problem, the theoretical framework, the methodology, the sources of information (HERNÁNDEZ; Fernandez, Fernandez, FERNANDEZ, BAPTISTA, 2014).

The problem, in turn, contained a brief description, its delimitation, the question of the research, its justification and the objective. The methodology defined the type of research, the data collection instruments, the sample and the schedule. The didactic model of each unit was constituted by the objective of the theme, by the presentation of the content, by didactic activities and by bibliography.

For the presentation of the content, the synthesis was written, videos and ppt were added. The didactic activities were associated with the realization of concrete works related to the development of the project by the student. These elaborations of the students had to be sent to the platform (in the form of tasks), for the review of the advisor. The main bibliography was in the course as pdf.

The logic of the course is that the student designs and develops, individually, his reception work. This fact is based on the consensus that exists today in the sense that what is involved is "learning by doing". It is not just a theoretical reflection (SÁNCHEZ PUENTES, 2014).

Implementation

In the course, 30 students were enrolled and there was the collaboration of 4 counselors and one course holder. The students signed up for the course on the platform and had access to the materials for presentation of the contents, as well as the didactic activities. It was agreed to work the content in block for each unit, so that the first theme addressed is the "problem" of undergraduate work.

The students had to analyze the contents of the course at home (at home) and elaborate there also the tasks that had to do with the design of their graduation project. In the classroom, in person, the review is carried out, one by one of the works prepared by the students and that were previously sent to the platform.

Students had counselors who read and fed their writings. The goal was for the students to produce original texts, which would seek an authentic process of quality academic training.

The subjects or objects of the undergraduate works of the students were free. They were only invited to be related to education and from personal experiences and interests. A questionnaire was presented to define and verify the selected object when answering the questions.

These proposals were presented orally and analyzed and returned by the professor who was the holder of the course. In some cases, further change or development was required in its foundation.

In the first class, where these ppt are exposed, a serious deficiency related to the difficulty of students has to elaborate written works is detected. For the presentation of the "problem of the undergraduate project", in the context of the tasks designed by the virtual course, they are asked to elaborate a ppt containing "description", "delimitation", "justification" and "objective".

Here is clearly expressed one of the pieces of evidence of the poor quality of training. There are serious limitations to being able to elaborate a work written in a coherent, logical and well-spelling spelling.

As Goyes and Klein (2014) say, writing an undergraduate project implies making explicit a position supported by reasons that support ideas. In this sense, the text itself is not a product, but a process, that is, it must be recognized that there are stages of pre-writing, writing and post-writing.

It was decided, then, to intervene seeking to develop writing skills. To do this, you have to teach what is the structure of sentences and paragraphs. They are related to punctuation marks. We work with spelling rules. It becomes evident that this whole problem is also associated with your skills of establishing arguments and logics for academic work.

From this moment on, it is decided that all students should publicly submit their elaborations, which will receive immediate feedback. It is considered that what is said to a student can also apply to others. It is also agreed to increase homework spaces on the platform so that students can "upload" new versions of their reworked work.

The student, as Parker (1997) says, will be required to:

•   to be an active and autonomous subject, capable of developing personal knowledge.

•   examine and improve their own thought and learning processes.

•   research, examine, record and analyze information.

•   ask your own questions, self-regulate your learning and build your own meaning.

Similarly, concerning the content, it is possible to detect that it is necessary to emphasize in the students the necessary relation that should exist between:

- The title of the work and the delimitation of the problem.
- Delimitation and objective.
- The title and objective.

For this, the corresponding indications are made, these elements are contrasted and compared and correction proposals are made. Similarly, students are invited to work collaboratively; for this, couples are established so that, before sending the advance to the platform, a partner reviews it and suggests the corrections it deems appropriate. Public advisory services continue to seek for all students to reflect and correct their own work when they see the indications that are made for the advances of other classmates.

In the process, he gave the desertion of ten students. The titles of the problems that students establish to carry out their undergraduate projects are as follows:

1. School violence: physical, verbal and secondary.
2. Intercultural diversity and education
3. Family violence and school performance in adolescents.
4. Cultural capital and school performance.
5. *Aggressor's emotions, bullying and sixth grade.*
6. Teachers' violence against. Student Freedom of Expression.
7. Series the lord of heaven and school aggression.
8. Theory and practice in the right to education in the rehabilitation of adolescents.
9. Sex education in adolescents with Down syndrome.
10. Didactic strategies to teach a person with Down syndrome to read and write.
11. School violence and emotional education.
12. Prevention of early marriage and early pregnancy in families of Purépecha in the office of the mayor of Iztapalapa.
13. Inclusion strategies for students with Down syndrome.
14. Violence against transgender people in college.
15. Training in values for the prevention of violence in high school.
16. Inclusion of students with disruptive behaviors at the primary level.

17. Training of secondary teachers on ADHD.
18. Music as a teaching tool for reducing gender violence in high school adolescents.
19. Causes of school violence in elementary school.
20. Educational intervention project: proposal for prevention and mediation of violence in elementary school.

I work with the section "theoric landmark"

For the presentation of the "theoretical framework ", in the context of the tasks designed by the virtual course, they are asked to elaborate, again, a ppt that contains the definition of the main categories that make up their object of study. In the presentation of these ppt, it is detected the difficulty that students have to identify the main categories of their work, the lack of knowledge of how to make bibliographic references with the APA model and the lack of information about the use of a database from which they can obtain up-to-date information.

At first, an intervention is carried out that seeks to solve the difficulty that students have to identify the categories in their work. Once again, it uses the analysis of the correspondence between the "main words" that appear in the title of the work, in the objectives, in the delimitation and in the question. There you can see how certain "words" have been repeated that at this first moment can be considered as the central meanings of your undergraduate work.

This list of words constitutes the first clue to the construction of its "theoretical framework". What do they mean? Are there different definitions? Why these differences? What are theoretical currents? Is there a chain I can identify with? Were the authors consulted the first to define and use these concepts? Answer these questions, clearly located at the gates of the "theoretical framework".

The elaboration of the "theoretical framework" shows the problems associated with academic reading and writing. Here it makes sense the fact that it is detected that in the home of none of our students there is a library; that only 6% have parents with a college degree; that only 30% make use of the university library or that only 16% seek academic information online. It can be said that there is no habit of academic work in students and this is because there is no family or school context that promotes it.

One of the interventions that is carried out at this point in the process is to agree with the library administration to design and teach a specific workshop where students learned how to locate and download electronic texts from databases and correctly use the APA model to make bibliographic references.

This workshop also promotes a great promotion for conducting academic readings that involve students increasing the number of hours per week they dedicate themselves to performing academic work. Similarly, it is necessary to guide the student to systematize his reading process for which it is recommended to learn how to make bibliographic files or work sheets.

Counselors ask students to list bibliographic materials found in the library or databases to enrich the "theoretical structure" of their projects.

I work with the "methodological approach" section

In the course content, the "methodological approach" consists of the definition of the type of research, the selection of instruments, the definition of the sample of informants, the prefiguration of a work scheme and the elaboration of a schedule.

From the didactic activities for this unit, students are also invited to develop a ppt where they will expose the definitions and choices that make these elements for their undergraduate project.

In the virtual course, we explain what are the characteristics and what are the characteristics and, in which cases, should develop a qualitative, quantitative, mixed or documentary approach. Students are exposing, one by one, their ppt and receive public feedback (seeking that what is said to a student also serves those who listen and so that they themselves can make corrections to their own projects).

It is clear that students need to make more rigorous readings of the course texts. In this part of the development of the project, we see the difficulty that students have to define or identify what type of methodology can be selected for the chosen research object.

According to the type of research object and with the support of the advisor, students should define a methodological option to develop their projects. The types of methodology chosen by the students are as follows:

- 15 (75%) opted for the qualitative approach.
- 3 (15%) for documentary work.
- 2 (6%) for a mixed alternative where they will combine the qualitatively and quantitatively.

It can be said that this option of 75% for a qualitative study does not speak only of what is the trend of research papers that are currently carried out in the educational field in general and in the UPN in particular. It is likely that students have opted for the approaches preferred by their counselors (in addition, of course, to what their object of study allows). It is believed that the same object can be studied from different methodological options.

However, of the 17 projects that chose to carry out the fieldwork, all claim that they will conduct questionnaires, five say they will also do interviews and only two add that they will make observations. This preference for questionnaires may be indicating that a kind of "mental energy saving" (law of least effort) is imposed, which may result in a lack of rigor in analytical work and even a certain superficiality in the results of the investigation.

On the other hand, those studies that consider data collection through the combination of several data collection sources (10%) represent a serious perspective for the work that will be derived in the analysis process.

Obviously, the selection of instruments for data collection may be related to the schedule in which the intention of all projects to be carried out at most one year is expressed (which is what the degree regulations propose).

The ppt version of the project

To end the first semester of the course, a colloquium was organized in which the students presented their graduation project in ppt format. This was precisely the format we worked with throughout the semester. From their public feedback, students made the necessary corrections. In total, during the semester, 20 versions of the project were made.

In the colloquium, 20 students were presented, that is, during the semester, 10 students were discharged, which indicates that there was dropout of 33.3%. In this presentation it was possible to verify that the students had already overcome the writing problems fundamentally related to the difficulty in structuring sentences and paragraphs.

The most important thing, above all, was to achieve a logical structuring of the project. Now, if the relationship between the title, the delimitation and the overall objective of the project have been clearly established s. The ppt has become an excellent tool for building what could be called the "skeleton" of the titration project. Now, with these learnings and achievements, students were prepared to elaborate the "Word" version of the project.

The Word version and project registration

The first activity that was done, in the first month, of the second semester of the course, was the extension of the project to have the "Word" version of it. It can be considered that the "ppt version" operated as a kind of "scheme" of what would be the full-degree design.

The "ppt version" of the project was "fed back" and, in a way, "approved" at the colloquium. What was now involved was developing the "Word version". Basically, the information that was already part of the "ppt version" had to be expanded.

This "Word version" was not reviewed in the classroom, but was delegated to feedback from counselors. Once this version has been validated, it was submitted to the LP Titration Commission.

Only 20 projects were submitted to the Grau Commission in the form of a thesis. The committee only called for reformulations for two projects, i.e., so far, if we consider only the 20 projects submitted, in the end an efficiency of 90% has been achieved.

The evaluation

Once the undergraduate projects were enrolled, the same exam that had been applied at the beginning of the process was applied. The following results were obtained:

- Elements that constitute a research project (65/100).
- Search problem description (57/100).
- Delimiting the search problem (63/100).
- Construction of the research question (65/100).
- Approach to research objectives (58/100).
- Locate the project in some type of research methodology (60/100).
- Establishing the central categories in the delimitation of the problem (58/100).
- Development of the theoretical framework of the research (58/100).
- Definition of the universe and sample will serve as empirical reference of the research (49/100).
- Selection of tools for data collection (56/100).

The average number of points obtained by all students was 57/100.

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Analysis

If we make a table where the results of the knowledge test that was applied to students before and after the process of performing the undergraduate project are presented, the positive impact of the pedagogical intervention performed can be clearly appreciated.

Table 1 – Knowledge test results

		Before	After	Difference
1	Elements constituting a grade project	32	65	33
2	Description of the problem	30	57	27
3	Delimitation of the problem	28	63	35
4	Construction of the inquiry issue	32	65	33
5	Defining objectives	31	58	27
6	Locate the project in some kind of methodology	20	60	40
7	Establish the central categories in the delimitation of the problem	25	58	33
8	Development of the theoretical framework	29	58	29
9	Definition of the universe and the exhibition will serve as empirical reference	16	49	33
10	Selection of tools for data collection	26	56	30
	Average	**26**	**57**	**31**
	Total	**269**	**589**	**320**

Source: Prepared by the author

The numbers that speak of the average of the grades obtained by the group of students serve to symbolically represent the situation, before and after, of the intervention. If we cling exclusively to the symbolic representation of the data, it can be said that, in a general sense, before the intervention, the students have an average of 26/100 positive results in the applied exam. These data tell us that there is a deficiency of approximately 3/4 of the knowledge that must be required to be able to develop an academic qualification work.

I don't want to analyze or discuss the quality, accuracy, or margin of error of the exam here.

Having only 26% of the knowledge due to a significant deficiency in the students' academic background. One can speak of disability to the extent that, before the application of the exam, students had already taken at least three disciplines related to these processes associated with the design of an undergraduate project. On the other hand, the fact that at the end of this intervention process students have 57% of the teaching of knowledge speaks of two things. On the one hand, if a learning has been achieved (31%) of the desired knowledge; however, on the other hand, this same data speaks of the fact that students did not learn 43% of

what they tried to teach. In this sense, there is an achievement, but at the same time, this is deficient in relation to the projected ideal.

Conclusions

1. Non-qualification is associated with a low-quality problem in training, so to solve it, it is necessary to improve teaching and learning processes for students to acquire and develop knowledge and skills that allow them to build arguments that are the central elements that are part of their cognitive and intellectual capacity.

2. The difficulty in academic writing demonstrates the lack, on the part of students, of theoretical and operational tools to carry out the process that requires the preparation of the host document that is one of the requirements to achieve their diploma.

3. In fact, the support of the virtual course allows the student to access, anytime and anywhere, the materials developed to teach them what it consists of and how each of the elements that make up the undergraduate project is elaborated. Likewise, the design of this course gives you the opportunity to fully relate your ideas and elaborate advances in the design of your undergraduate project.

4. It is said that learning time with virtual media can decrease because the task of teaching becomes easier and the student increases their interest in the content being presented more attractively; however, the difficulty lies not only in the characteristics of the materials used for teaching. One of the difficulties encountered is the fact that the student does not have cognitive education or habits associated with academic work.

5. The experiential dynamics of modern times is another obstacle that educational processes have to face today: students do not have an exclusive dedication to the task of doing their undergraduate project. This task is just one of the many activities that the student performs. Even the internet and electronic media are becoming one of the elements that occupy the minds of students and not precisely for school activities.

6. Although it can be much criticized, it was effective to create a model graduation project that homogenized the intervention of various counselors around the work performed by the students. The heterogeneity of existing models for conducting research in the educational field is well known; however, to develop a formative process it is necessary to make a consensus of what is considered basic for this task.

7.   It was useful for the formative process to assume writing as a process and not as a product. In this sense, the student became aware that it was about making "advances" and that this meant permanently building "new versions" of the writing.

8.   Similarly, the use made of the ppt version of the project synthesis was useful. This version allows a synthetic presentation of the advances to be made and, at the same time, it can make public feedback that allows to intervene not only in the project that is presented, but in the other students who participate in the dynamics of the elaborated class.

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