EXPANDING ONLINE TEACHING STRATEGIES THROUGH PSYCHOPEDAGOGICAL SUPPORT

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Abstract

The role of the psychopedagogical advisor varies according to the work methods of each institution, the curricular areas, the audience to which the class is directed, teacher's conceptions, among others. Hence, its characterization is difficult and with it, the construction of a flexible accompaniment model.

This presentation is based on the principle of psychopedagogical mediation, considered "a collaborative process among education professionals for the preparation and selection of educational aid necessary and appropriate to achieve educational objectives" [5]

This paper analyzes, from a socioconstructivist perspective, the process of psychopedagogical support offered to teachers who design online and hybrid courses at Iberoamericana University (Mexico City).

Keywords: psychopedagogical support, teaching strategies, online courses, psychopedagogical mediation.

1 INTRODUCTION

This paper analyzes an example of psychopedagogical support applied to the design of online subjects in higher education; it is a proposal of collaboration and interdisciplinarity in the design of class activities, where a specialist in didactic strategies and a specialist in contents of a disciplinary area participate. The results suggest that this type of collaboration can promote the incorporation of new forms of teaching, through the relationship established between the learning designer (as a psychopedagogical advisor) and the content specialist.

The work arises in the context of the activities that are carried out in the Office of Teaching and Learning Mediated by Technologies (DEAMeT), where one of the essential tasks is the elaboration of online subjects aimed at undergraduate students. Since the creation of online subjects in the institution, we have worked with subject matter experts supported by an instructional designer. However, as of 2016, changes were made. The content of an online subject were created in collaboration, during four months, incorporating discussions on pedagogical purposes, evaluation strategies, ways of presenting and organizing information and use of some technological tools.

The research question that guides this study is:

How does psychopedagogical support influence the development of teaching strategies for professors who design courses online?

From it, the following objectives are considered:

- Analyze the psychopedagogical support process in the development of online and hybrid courses.
- Ponder the impact of psychopedagogical support on the development of teaching strategies.

1.1 Psychopedagogical support: overview.

According to Coll [3], there are models of psychopedagogical support that start from a constructivist and sociocultural perspective. This implies that they assume learning as a process of construction of meaning and attribution of sense of content. The teaching assumes it as the series of aids provided to the students to set in motion the processes of meaning construction. Finally, they seek to improve the teaching capacity to provide the necessary aid to students.

For purposes of analysis in the present research work, we will start from these same conceptual assumptions and consider psychopedagogical support as an "activity of a collaborative nature
between the psychopedagogy professional and the teaching professional" [3]. According to the authors, this support implies a process of collaborative construction of shared meanings between teacher and advisor, in terms of the elements that constitute an educational process.

Psychopedagogical support is a process of a certain duration, where educational practices are built, which may contain teaching strategies, didactic sequences, class materials, new contents, and so on. The essential part of this process is the participation of at least two actors: a psychopedagogical advisor, who acts as a mediator between the findings on the field of education and a professional teacher, who will later function as a mediator between the cultural knowledge and the construction of knowledge of the students.

Thus, psychopedagogical support is a practice that enriches all those involved:

- students, who engage in activities previously worked by experts from various disciplines, and who are assumed as the main actors of their own learning
- teachers, who not only receive support on teaching strategies, but also find a space to reflect and build on their practice
- psychopedagogical advisors, who have the opportunity to share with a teaching professional, some ideas about the teaching and learning processes, and receive first-hand feedback on them, from a collaborative work

However, two of the essential ingredients of psychopedagogical support are collaboration and joint construction. For this to happen, some elements are required. Authors such as Hernández [8] have proposed several, among which are:

- Ensure that teacher and advisor understand the task, the goal and the reasons to participate in it.
- Consider both the importance of the new and the known.
- Establish interpersonal relationships in the process.
- Frequently synthesize achievements, doubts and pending.
- Ensure a climate of trust for both participants.
- Start from the needs raised at the beginning of the process.
- Generate constant spaces for reflection, both for the teacher and for the psychopedagogical advisor.
- Constantly seek a balance, where the participation of counselor / teacher is equally important and valuable.
- Take into account that two of the goals of the process are the autonomy of the teachers and the improvement of their professional capacities.

These criteria lead us to believe that the process of psychopedagogical support is not a simple process, but requires a particular preparation and sensitivity, as well as a methodology. In this regard, Onrubia, Lago and Pitarque [9] have proposed the following phases:

1 Negotiation and definition of objectives: define a problem and agree on the process.
2 Selection and recording of data: record data, observations and comments that may be relevant for the purpose of the support.
3 Analysis and interpretation by the advisor, to identify possible changes to be introduced in practice.
4 Preparation of a shared representation, that is, review the data in collaboration and specify necessary modifications.

Throughout the psychopedagogical support process it is possible to detect changes in educational practices or understandings of a phenomenon; however, Fullan [3] makes mention of three elements where these changes can materialize mainly: the use of materials, the didactic approach and the beliefs of the educational agents.
1.2 Online courses at Iberoamericana University

The Iberoamericana University began developing online courses and subjects in 2006, with the understanding of providing an alternative to students who were already in the labor field and could not attend the campus. That is, for reasons of practicality. In addition, it was a way to bring some technological tools to teachers and students.

Initially, it was requested, as an official guideline, that each career program designed at least one online subject of its program, limiting this possibility to the most advanced semesters.

The design of these materials online was done between an instructional designer and a teacher. In a general way, this design consisted of the compilation of readings on the subjects treated, a series of activities placed in order and delivery spaces where essays or investigations on the contents were requested. In some cases, tests previously configured for the student to solve them in a certain period of time were also included.

As of 2016 and in the context of a restructuring of the area where the online courses were developed (the Office of Distance Education becomes the Office for Teaching and Learning Mediated by Technologies), changes were also made in the subjects that are taught online, the main ones being:

- Content can be developed online for any semester and in the amount required by each department
- Materials can be designed completely online or in a hybrid format
- Reference materials are presented in a variety of formats (text, audio, video, image) and are created by teachers themselves
- Activities designed to promote interaction between students and the material
- Activities designed to promote interaction between students and the teacher
- Evaluation consider complex processes, such as analysis, synthesis and creation.

It was assumed that the creation of subjects would be possible through the participation of the following members:

- Professor / Expert. They are the ones who dominate the area of knowledge, making pedagogical decisions, designing educational purposes, choosing consultation resources, and designing activities.
- Psychopedagogical advisor. They support the process of teacher design, being responsible for guiding the teacher in the design of teaching and learning activities and in the choice of resources. It ensures that the teacher retakes the educational purposes that have been previously established.
- Academic coordinator. They set the educational purposes of the subject and make known the socially valued knowledge that will be the subject of the educational process.
- Technological programmer. They help with the use the technological tools to be employed and get involved on the construction of materials mediated by technologies.

It can be said, in summary, that psychopedagogical advisors, professors and computer scientists build common scenarios (communities) where aid is developed adjusted to the needs of each particular case.

1.3 Teacher training and psychopedagogical support in the creation of online subjects

The professors of the Iberoamericana University have at their disposal a catalog of courses and workshops on teacher training within the area of integral training of the institution. These courses relate to specific topics, such as project-based learning or the preparation of rubrics, among others, and involve activities to develop resources or personal reflections. In contrast, the changes suggested by DEAMeT, in terms of participants and procedures, has the aim of accompanying a particular teacher during a specific project, which is the creation of an online subject, as a concrete significant practice where the development of certain knowledge was possible.
According to Lave [4], the construction of knowledge is possible from the participation of a group of members of the community in socially valued practical activities. Thus, the professor who assumes the creation of an online subject, participates in a set of concrete activities that allow him to build the knowledge associated with the educational process of a particular subject, select purposes, design activities, choose resources, etcetera. This way, different purposes were established with each teacher, and the activities, as well as the reflections revolved around them, result in a process of content exchange that allowed developing of new understandings and reflections on the didactic strategies of the course in line.

The entire process is proposed with a duration of around four months, in which both the development of online subject content and the key moments of a psychopedagogical assessment take place in parallel. In the following table you can see the elements of these two processes

<table>
<thead>
<tr>
<th>Elements for developing an online material (process in DEAMeT)</th>
<th>Elements of the psychopedagogical support process (inspired by Onrubia, Lago and Pitarque, [9])</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial meeting</td>
<td>Setting purposes and clarifying roles and functions</td>
</tr>
<tr>
<td>Search and selection of educational resources</td>
<td>Permanent dialogues about the pedagogical purposes to be achieved</td>
</tr>
<tr>
<td>Distribution of topics according to the school calendar</td>
<td>Exchange of ideas between disciplines</td>
</tr>
<tr>
<td>Construction of didactic sequences</td>
<td>Discussion about contents, activities and forms of evaluation</td>
</tr>
<tr>
<td>Preparation of guides for the student</td>
<td>Share formats to present information and technological tools</td>
</tr>
<tr>
<td>Development of self-created materials</td>
<td>Modeling and / or constructing together self-created materials</td>
</tr>
<tr>
<td>Design of contents in the virtual classroom</td>
<td>Spaces for reflection on content creation, feedback and adjustments</td>
</tr>
<tr>
<td>Proof reading</td>
<td></td>
</tr>
<tr>
<td>External validation of online matter</td>
<td></td>
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</tbody>
</table>

1.4 Teaching strategies and educational processes

For Mercer [6], education is a phenomenon that occurs through discourse, in a process of interaction between apprentice and teacher. In the same way that professors and students in the classroom make use of discourse for the construction of knowledge, the advisors, as beneficiaries of a psychopedagogical formation and as knowledge heirs valued by the institution, use discourse as a thinking tool in interaction with the teacher on the construction of knowledge necessary in the creation of online subjects.

The construction of the online course supposes the development of teaching strategies for the contents of the subject. Díaz and Hernández [2], found a series of teaching strategies in different investigations by authors such as Díaz Barriga, Lule, Mayer and Wolff. The following stand out:

- Strategies to guide student attention (including the use of interspersed questions, the identification of typographical and discursive signs and the use of illustrations).
- Strategies to organize information (including the creation of maps, or semantic networks, and the use of summaries or synoptic tables).
- Strategies to promote the link between previous knowledge and new information to be learned (involving previous organizers and analogies).

From the point of view of the authors, the teaching strategies are those resources that the teacher uses to focus and maintain the attention of the learners and serve the proposed educational purposes.

Some strategies found by Coll and Onrubia [1] are:

- Strategies associated with the exploration and activation of previous knowledge (use of social and specific frames of reference by the teacher);
The use of resources from the immediate extra-linguistic context (objects, actions and events such as drawings, diagrams, models, etc.);

The demand of information to the students (request of evidences, experiences and previous related knowledge);

Strategies for the positive attribution of meanings (use of meta-statements, phrases such as: "we"; "this is what we call ..." "we had said that ...", etc.);

Strategies at the service of the progressive elaboration of increasingly complex representations of the teaching content (re-elaboration of the contributions of the students, the categorization and labeling of certain aspects of the content, etc.).

For analytical purposes, in this paper we call “teaching strategies” the procedures on which the teacher relies to direct and direct students to a certain activity or to the construction of knowledge associated with the course. These strategies are developed in an immediate virtual extralinguistic context, for which they acquire particular characteristics.

In summary, an analysis of the strategies commits to a study of the oral, written and also the material and virtual aspects recovered for the understanding of the communicative act.

2 METHODOLOGY

The work reported here is qualitative, which implies that it is not sought to collect data to prove preconceived hypotheses nor the measurement of scales and variables [7]. The analysis started with the identification of three professors from the University, with similar experiences in the use of technologies and from different curricular areas that would teach and design a subject online for the first time.

For the analysis of psychopedagogical support, we follow Fullan's proposal on the three evidences of the change in educational practices:

a) Use of materials, based on the contents in virtual classrooms.

b) Didactic approach, based on the planning tables that were built throughout the process.

c) The beliefs of educational agents, based on some interviews with experts in the field.

These evidences were analyzed within the following units:

- Organization of contents;
- Learning activities;
- Means selected to represent the information;
- Ways of interaction with students;
- Evaluation tools.

3 RESULTS

In this section some of the psychopedagogical support experiences are shown, with an analysis of the evidence proposed in the methodological section.

3.1 Case 1. Guiding the student: didactic planning of activities.

The teacher is a public accountant, a teacher in education and administration. At the beginning of the course, the teacher explained that the subject:

Its objective is for the student to be able to apply the theoretical knowledge of the different subjects contained in the Bachelor's syllabus [...] to identify action alternatives for solving a particular problem in which he / she works within the company. .

Among the evidences analyzed, there are those related to the didactic approach based on the planning tables and which, as will be seen, give an account of the psychopedagogical support process.

The teacher showed the planning of the following elements for the first unit of work:
Table 2. Didactic planning chart.

<table>
<thead>
<tr>
<th>Unit</th>
<th>Topic</th>
<th>Competence / Learning objective</th>
<th>Proposed activity</th>
<th>Products delivered by the student</th>
<th>Instruction addressed to the student</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction to the subject</td>
<td>Present the content of the material to the members of the group.</td>
<td>Presentation of group members. Presentation of the guide for the subject and mechanics of assigning grades.</td>
<td>Review of the general documents of the course. Participation in presentation forum</td>
<td>1) Review the subject guide. 2) Participate in the presentation forum where you will talk a little about yourself, your tastes and interests and some information you want to share.</td>
</tr>
<tr>
<td></td>
<td>The experience in the workplace.</td>
<td>Reflect on participation in the workplace</td>
<td>Watch video &quot;Celebrating work, any kind of work&quot; Mike Rowe. <a href="https://www.ted.com/talks/mike_rowe_celebrates_dirty_jobs?language=en#t-60867">https://www.ted.com/talks/mike_rowe_celebrates_dirty_jobs?language=en#t-60867</a></td>
<td>Participation in the discussion forum</td>
<td>I ask you to publish a photograph of yourself and comment where you are doing your professional practices. 3) Review the video.</td>
</tr>
</tbody>
</table>

The psychopedagogical advisor wrote the following in a field note.

We recommended to present the video at this point. The resource is about dignifying work and a global humanist perspective. As a result, we could share some core questions that guide the revision of the video.

That is, we could place a fourth step similar to this: "In the discussion forum, answer the question: Do you agree that work builds an effective bond between human beings, family, filial love, etcetera?, considering what was presented in the video. This will deepen and guide you in the review of the specific content of the subject, in addition you will respond to the purpose of "reflecting on participation in the workplace".

Afterwards, both the teacher and the advisor engaged in a discussion concerning these notes, reaching an agreement and rebuilding the student’s guide as follows:

- Review the subject guide and general course information in the General Information section.
- Participate in the presentation forum where you will talk a little about yourself, your tastes and interests and some information you want to share. I ask you to publish a photograph of yourself and comment on where and since when you are doing your internship.
- Review the video "Celebrating work, any kind of work" by Mike Rowe.
- In the forum "Participation in the workplace" reflects on the importance of job placement as it allows to provide an experience that favors the assumption of commitments and develop a certain degree of initiative within the company.
- In this forum answer the following points:
  - Do you agree that regardless of the type of work, all of them require personal commitment? Argument your answer
  - For you, what are the 3 main ideas that you rescue from the video
  - Discuss at least 5 different jobs or functions that a LANI performs
  - Do you agree that work builds an effective and effective bond between human beings, family, filial love, etc? taking into account what was presented in the video.
  - Do you consider that work experience in a regional company will allow you to perform professionally in any region of the world? (Explain your answer)

Up to this point, the psychopedagogical counselor has promoted the development of "teaching strategies to guide students' attention" [2]. That is, the use of questions interspersed to accompany the
student in the analysis of the contents of the course. The professor, on the other hand, has taken up the suggestion and has personalized it, deepening it in the identification of "LANI works and functions", the analysis of "effective ties", etc.

3.2 Case 2. Organizing a learning experience through resource creation.

The professor holds a degree in Law with a specialization in International Law and Foreign Trade, her professional activities are developed in the private initiative as an advisor in Foreign Trade and as a teacher.

The teacher explained during a face-to-face meeting that students would have to analyze the technical standardization of a product. She explained that, in the United States, Japan, Spain, Mexico, among other countries, there were different rules that were applied to textile products, so students would analyze a textile product in light of the normalization of an elected country.

The teacher explained that her evaluation process (in face-to-face classes) was exhaustive and took weeks of work, leading her to leave them unfinished and without any final feedback, so she used a regular test instead as a tool to assess the knowledge developed.

In the final project, the teacher had to identify the student's product based on the Technical File, look for the regulations of each country chosen by the students for the product, then compare the regulations with the product specifications and finally show the student its successes and areas of improvement thereof. Given the variety of products, countries and technical standardization involved in each product chosen by at least 20 students, the teacher ended up requesting an examination and inviting them to compare the use of the regulations of the countries in question on their own.

As a result of the analysis of this situation, the psychopedagogical advisor suggested the construction of a "template" of evaluation, whose purpose was to share at least 5 products with specific characteristics that would test the use of technical regulations. Students would have to choose a template, the one closest to their products and choose a country out of 5. Starting from these elections and resources, the students would have to "rebuild the technical sheet template" so that they responded to the regulations of the chosen country. Here is an example of a template:

![Figure 1. Technical sheet template](image)

The characterization of the product was planned by the teacher based on her knowledge of textile standards. If the student chose the United States or Japan as his place of sale, the textile product would be censored, since, in that country, baby garments have a prohibition on the use of polyester because of their high flammability. However, if he chose Mexico, his sale would be possible, since there is no prohibition on this. The student would have to modify the file, adjusting the characteristics of the garment, according to the regulations of the country of destination.

Thus, the teacher built a set of cards that allowed students to analyze the technical regulations of the countries for the construction and sale of textile products. As a result, its activity contributed to the
achievement of the purpose of the subject: "Identify the implications of compliance with the International Textile Standardization for the design of textile products for export".

In this case, the psychopedagogical advisor promoted the construction of "Strategies at the service of the progressive elaboration of increasingly complex representations of teaching content" [1], which involve reconsidering certain aspects of the content to identify main concepts.

4 CONCLUSIONS

The cases presented above are only two fragments of what happens during the psychopedagogical support process in the construction of online subjects. From these and other evidences, the following changes were noticed:

- An approach to the technological tools that support the teaching-learning process. The three professors used digital resources that contributed to the purposes of their course.
- A possibility to consider other teaching modalities. One of the professors resorted to the use of a hybrid mode of teaching, while the other two made use of an online modality.
- New ways of presenting information to students. The three professors made use of digital tools for the representation of contents (video, audio, images).
- Learning activities that move away from the traditional memory model and include greater student participation. The three teachers designed student-centered activities, moving away from traditional teaching.
- New ways of evaluating, which promoted reflection and the construction of knowledge. The three professors used to rely on tests as assessment tools, and later resumed the use of projects instead. As a result, through psychopedagogical support, teachers prepared an online or blended course and reflected on their teaching and learning strategies.

The work shows that psychopedagogical support can enrich the development of teaching and learning strategies for teachers, modifying and / or expanding the ways of presenting information, organizing content, evaluating and encouraging interaction, among others; thus offering alternatives to traditional teaching models.

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