

# **As Life Itself:**

## **Authentic Teaching and Evaluation of Professional Consulting Competencies in a Psychology Course.**

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### **ABSTRACT**

The authors present an innovative practice of authentic evaluation of competences carried out in the “teaching and learning strategies” course of the psychology degree. The evaluation proposal central to this course is based on a real, relevant and socializing practice context in which students have to act as counsellors to respond to a high-school teacher’s request: to improve a teaching sequence or unit. In order for this authentic project to work and generate a gradual construction of learning, course teachers used a series of evaluation strategies directed at the assessment of both the result and the learning process and aimed at facilitating students’ learning self-regulation and teachers’ provision of educational help. Results show that students value the processes of formative assessment because they allow them to act in an authentic context. In turn, teachers are highly satisfied with the involvement and quality of the projects.

**Keywords:** Authentic Evaluation, Formative Assessment, Professional Competencies, Teaching Strategies, Learning Strategies, Cooperative Learning, Learning-Service, Innovative Practices, University Education

## CONTEXTUALIZATION OF THE PROPOSAL

The teaching and evaluation system we present in this chapter was specifically designed for a particular elective course, “Learning strategies”, framed within the Psychology degree and, more precisely, within the Psychology of Education specialization (Faculty of Psychology at the Universitat Autònoma de Barcelona). This elective course takes place in the first semester of the fourth and final year, and has 60 hours of on-site lessons. It is based on a firm belief that learning should be functional and motivating in order for it to be significant. The bases of the proposal are articulated through three basic areas: promotion of the professional counselling competencies, learning-service focused on the student and authenticity of the designed teaching and assessment activities.

The main goal of the course —as well as of all the subjects in the Psychology of Education specialization— is to train competent counsellors in solving the prototypical and emerging problems students will find in their professional future professional. Working in a cooperative group structure, students should counsel a teacher about the design of a teaching unit. This unit should be adapted to the characteristics of his group-class and integrate teaching of learning strategies.

The following sections describe the innovation carried out on the course, detailing how the organization of the learning-service was, and the support provided to students to achieve such participation. We will focus on showing the formative evaluation processes, noting those activities and resources that, from our point of view, enable students to self-regulate their learning. Also, we will analyse the results obtained by students and the possible impact on their professional community. Finally, we will discuss advantages and limitations of some of the activities planned and provide some future-oriented indications for improvement.

## **AUTHENTIC TEACHING AND EVALUATION PROCESSES IN HIGHER EDUCATION**

Before proceeding to describe the educational experience, it is necessary to know the theoretical assumptions that have guided our practice. First, we must define what we mean by learning-service project, since it is the backbone of the course. According to Puig (2007), "*learning-service is an educational approach that combines learning and community service processes into a well-articulated project in which participants are trained by working on real needs of their surrounding environment with the aim of improving it*". Thanks to this exchange—the collaboration between current and future professionals— students learn first-hand what it means to participate in the professional community. This means that learners will have to go beyond acquiring knowledge to practice their interaction, problem-solving, organizational and management, and communication abilities. In other words, they will have to learn how to act strategically if they want to be competent in facing professional problems.

The benefits of this methodology, learning while a service is performed—in this case counselling teachers—, have been widely demonstrated in recent studies, mostly focused on the university level and in different disciplines (Martin & Puig, 2014; Mayor & Rodríguez, 2015, Ramón, Juárez, Martínez & Martin, 2015). Research results indicate an increase of knowledge, higher appreciation of community's beliefs and values, increased interest due to a better understanding of both theoretical and practical aspects, and high involvement in the project's development process and its subsequent implementation.

In the experience we present, we wanted to adopt this methodology, not only for its effectiveness on students' learning processes, but also for the needs of teachers. Teachers require in-service training in acquiring new resources and strategies, requests that are often constrained because of the lack of time to engage in transforming and optimizing their class sessions. The fact that a group of students counsels them on their daily practice and develop some materials that they can use immediately, allows them to participate in the project without having to spend a lot of extra time on it. In this way, we can intervene in

a double line: students' learning and improvement of the practice of other education professionals. Also, it is worth noting that this exchange has been highly valued, especially with regard to the update of ideas involving the participation of passionate students and the transference from theory to real life.

Within this general context, the planning of specific activities is based on two key points: the development of professional competencies and authentic and formative evaluation. Development of competencies refers to students' ability to participate in tasks of their future professional community and to cope with the real problems of that community. That is, it is a pedagogy focused on the acquisition and practice of the abilities and strategies required to build up a professional role, in this case, in the field of Psychology of Education. Based on this, we define a competent performance as the effective resolution of complex problems in a situated way, through the selection and application of knowledge and strategies (Castelló, Monereo & Gómez, 2009). This definition emphasizes the need to recognize and recreate in our own lessons those contexts and practices of the professional field, as well as challenges and tasks that could cause a problematic situation. In turn, it indicates that activities should include tasks of information management, adjustment to the conditions, activation of social skills, etc., which are cross-cutting to most professional activities and not usually taught due to their unspecificity. Therefore, lessons planning go beyond the transmission of knowledge and involve students on case resolution in a practical and emotional way.

On the other hand, authenticity is the keyword of functional and meaningful learning. It helps students be motivated enough to become actively involved in the tasks and connect them with the world outside the classroom. By authentic teaching and evaluation practices we mean those where the purpose and resolution conditions as well as the demand are accurate, that is, are very similar to those found in real contexts of action (Castelló, 2009; Monereo, 2009).

Talking about authenticity in current educational context and, especially, in the university sector, is important for two educational reasons: the increase in

motivation achieved in relation to the internalization of knowledge and the opportunity to connect knowledge with a real professional practice. This idea point is a discourse that we keep on hearing from students year after year, and it relates to the construction of university courses aimed at, not only research but also professionalization —formerly called apprenticeship—. Thus, using practices focused on real problems also responds to students' claim for more practical lessons (in the sense of discovering the usefulness and applying what has been learnt).

Therefore, if we combine both concepts, we find that the connection with reality, the recreation of situations where students can apply the acquired knowledge and assess their own performance is, without doubt, the key to higher education based on the development of professional and personal roles. It is necessary to identify the prototypical and emerging problems one will have to face in the professional context, in order to recreate them at the university and assess students' performance and results achieved during that process.

### **The Authentic and Formative Assessment at University**

We mentioned above that in order to prepare a course, it is essential, almost in the first place, to determine what we want to assess. Teachers' assessment of students' learning is often conditioned by what teachers want to measure (the amount of knowledge acquired, its quality, progression, the support they need, etc.) and from what context they should assess it (the institutional culture, the intention and the recipient...). The aim of the assessment can be set towards social —proving learning, holding the institution accountable— or educational purposes —analysing the support offered, collecting the students' progress —. Assessment methods are chosen on the basis of the balance between the two purposes (Remesal, 2011). Some studies highlight the importance of educational policies and the education system, since they determine, or often even impose, assessment tools developed by external agents (Brown, Hui, Yu & Kennedy, 2011; Brown & Michaelides, 2011).

All these factors determine not only conceptions but also the way we assess and therefore, the planning of learning goals. In fact, assessment severely influences what is taught and especially, what is learnt. The first day of class, it is common to hear students asking about the evidences to be submitted for grading, and even during the course, they ask if that topic or another will appear in the exam. The retroactive effects assessment on learning and teaching clearly indicate that, if we want to improve our educational practices, we must begin to question assessment.

Therefore, we start from the conviction that the purposes of assessment, aimed at regulating processes and analysing and communicating results, have to be reflected in teachers' practices. For that reason, we have to plan evaluation activities tailored to the different objectives, defining who, how, when and why activities need to be evaluated. The realization of these dimensions allows students and teachers to develop a high-quality educational process.

In choosing assessment methods, if we focus on when and for which purpose we want to evaluate, in the literature approaches mainly oriented to account for students' learning are frequent. They differ from one another according to what is evaluated: a single result at the end of a process (summative evaluation); a regulation process to promote students' decision making (formative evaluation) or teachers' adjustment of support (educational evaluation); and according to the way evidences are collected and what they are used for (classroom assessment for an "in-situ" adjustment) (Sanmartí, 2008). What we want to emphasize is that there is a wide range of alternatives aimed at impacting the learning process, which promotes a change in regular teaching activities, especially in the university context.

This new assessment path coincides with the new competency-based teaching approach which, as previously mentioned, promotes more complex teaching and learning processes because it goes beyond knowledge to focus on how each student, based on his learner's profile, is able to apply knowledge in solving a problem. Under this new approach, assessment is required to be based on competencies. It also has to focus on analysing resolution processes

and do it in an individualized way in order to adjust support. It is, therefore, necessary to do both a formative and educational evaluation. Assessing and teaching become two processes that differ only by their focus (on acquiring or proving), by the limitations imposed on students and by the way students can live the activities in which they participate.

In the experience we present, we found the authentic formative and educational evaluation to be the methods and practices that best suit the assessment and development of professional competencies at university. Within this field of study, the literature describes what characteristics and methods are part of an authentic evaluation (Darling-Hammond & Snyder, 2000; Gulikers, Bastiaens & Kirschner, 2004; Monereo, 2009), the effects this type of assessment has on learning (Kearney, 2012; Meyers & Nulty, 2009) and how its purposes are influenced by the use of authenticity-based methods (Monereo, Castelló, Duran & Gómez, 2009).

According to Monereo (2009; p.23), authentic evaluation "*aims at specifically assessing the decision-making process needed to solve a complex problem in which different knowledge and competencies have to be activated and applied through coordination. Learners have to demonstrate the crucial strategic capacity to regulate their own behaviour and to adjust to unexpected changes, thereby justifying the actions taken*". The similarity between what is assessed and the real situations that students might face is an element that has been identified as essential in different studies (Guliker, Kester, Kirschner & Bastiaens, 2008; Monereo, 2009; Meyers & Nulty, 2009). We start from the premise that these practices keep a high resemblance with the context and with the problem situations that are specific to a particular professional field. This relationship is present in the performance conditions and in the cognitive demands, and it can happen in different levels, depending on the required tasks.

Before further discussing these methods further, it should be clarified that authenticity is not necessarily reality. This dimension refers to the degree to which tasks are realistic, that is: they are similar to their counterparts in real life;

are relevant, as there is an explicit utility in contexts close to the student; and are socializing, since they involve a position in a specific role in the community in which the practice is located (Gulikers et al., 2008). These three aspects must, of course, keep a clear correspondence with the problem that arises and should be adapted to the level at which teaching takes place, adjusting the physical and social conditions, the applicability and the prior knowledge needed to solve the problems.

Research on authentic evaluation is still emerging, since there are more practical initiatives than research studies attempting to examine its theoretical relevance and its distinction with similar notions. In fact, although there are some common references that agree in highlighting the mentioned key features (realism, relevance and socialization), many works give preponderance to one of these dimensions to the detriment of the others. This indicates that authenticity can be understood as a continuum in which the aforementioned components are integrated in different doses.

In the field of higher education, students have to master the knowledge of their discipline and use it strategically to respond to specific issues. This imperative is linked to the very nature of the studies: training professionals to act competently in their respective areas. Therefore, many authors have found in authentic evaluation the appropriate method to certify the acquisition of competencies and to promote in-depth learning in different disciplines of higher education (e.g., Carter, 2013; Love, McKean & Gathercoal, 2009; Raymond, Homer, Smith & Gray, 2013).

Authentic evaluation models that have been put into practice show both the level of learning achieved (summative aspect) and the process carried out (formative aspect), in relation to what and how students learnt during the assessment (educational aspect), which already provides this model with much diversity since it integrates previous approaches. In addition, this learning is usually situated and cannot be materialized in pre-determined products or fixed processes, but may differ from one student to another. All these aspects must

match the degree of realism, relevance and socialization of the competency that is developed and evaluated.

This conceptualization of teaching and evaluation takes us away from the so-called 'test culture' (Clark & Rust, 2006), with multiple-choice tests and a closed-ended questions, which has been widespread, always under the objectivity motto, because it is easy to apply and mark. We believe that these techniques can be useful at times in order to obtain quick information on what students can say about a topic. However, there is no evidence to ensure that questions allow them to show everything they have learnt. This method, widely used in higher education (also due to its usefulness, as the number of students is very high), should be eliminated if we want to certify that future professionals are competent and to help them to be. In turn, this will also retroactively improve our teaching.

Finally, as we noted above, the relevance of designing experiential learning activities is perfectly akin to educational counsellors' need of knowing their professional reality, because planning the support and counselling without knowing the object/subject would be meaningless. On the other hand, we must also remember that if acting competently means adjusting decision-making to the context, it is important for students to learn how to self-regulate. The assessment methods will help them acquire this learning.

### **The Development of Professional Competencies through the Participation in an Authentic Context**

The teaching and authentic evaluation system we have presented was planned for the *Learning strategies* course, an elective course in the fourth year of the Psychology degree at the *Universitat Autònoma de Barcelona* (UAB), with a teaching load of 6 credits. Since we started this new system of education 15 years ago, it has had an average of 45 students, quite a high number if we consider that this is an elective course in an area of intervention —education— that is not the most popular in Psychology.

Before delving into this, it is worth highlighting that a previous study was carried out regarding the project. This research, showed that an education based on authenticity promotes the development of professional competencies and increases motivation of all participants, including the advised teachers who, in turn, learn from students' work (Monereo Sanchez & Suñé, 2012). In this particular study, we began to implement practices aimed at implementing a formative evaluation, such as the modification of the assessment conditions (where students could have access to previous working notes), and a real assessment, like the development of a final test involving a real case resolution. Based on these positive results and following these lines, the experience we present goes beyond that to develop a system to acquire competencies through learning-service and authentic formative evaluation.

The purpose of this course is to help students design a competency-based teaching unit for a real classroom group, responding to a demand of counsel of a teacher of preschool, primary, secondary education and even university, in some of the schools with whom we have a collaboration agreement. Thus, lessons revolve around the project, so that students have the opportunity to apply the knowledge they acquire in the lessons to a real context. This links directly to the idea of giving relevance to the curriculum content of the course, as the objectives coincide with the ones a professional of Psychology of Education should have.

The course is taught during the first semester (September-February) and has two sessions per week of two hours each (a total of 60 hours). From the beginning, we share with students the objectives, content and syllabus of each session, which gives detail about methodology. They also have a *Moodle* platform where all the resources and basic information to follow the lessons are available.

There are two types of lessons, one per week: theoretical-practical and practical-experimental lessons. The former is designed to work on the contents and basic strategies of the course through participatory and reflective activities. The latter, is devoted to the participation in the real project of the learning-

service, and to the development of the teaching competency unit, applying the knowledge and competencies acquired in previous sessions. With two weekly lessons, students find a balance between acquiring knowledge and applying it in a constant cycle that provides space and time to revise knowledge, redefine it in case of misunderstanding and re-elaborate it in order to be used with a real purpose.

The theoretical and practical lessons begin with feedback on the follow-up questionnaire (see Appendix 3) about how the previous lessons were valued (activity explained in the next section). There is also a reflection on some of the key concepts of the course from three sources: a) the most frequent concerns expressed by students in the follow-up questionnaire; b) an activity that includes those concepts; c) or a dramatization in which teacher and students, or only students, take on certain roles, assigned during the last lesson, in order to pose a problematic or incidental situation that is then analysed and discussed with all the group (for example, a parent complains about the low level of conceptual content of a given school; or teachers of the same department, with very different conceptions on evaluation, discuss about choosing an assessment method). Afterwards, according to the lesson plan, the contents are introduced with different examples. The lessons finishes an activity that integrates the points raised during the lesson.

As the course belongs to the educational area, most of the content refers to how teachers can do a strategic teaching through which students can progressively become more autonomous at regulating their learning. Therefore, many of the methods used in lessons are the same as the ones taught as content. The method becomes part of the same message, by practising what we preach. This feature also links with the concept of authenticity.

In the practical lessons, students experience some of the most time-consuming teaching methods and the autonomous and guided work on the development of the final product. As we have indicated, that product is the design of a competency-based Teaching Unit in which content, objectives, activities, assessment and adjustment to students' diversity are planned in relation to a theme and contents requested by a real teacher.

This document is the basis of the project "Reciprocal Learning of Professional Competencies" (ARCPRO, 2009), which constitutes the community in which students participate during the learning-service. The ARCPRO project was created from two basic premises:

- a) The fundamental objective of a university course, in line with the European Convergence for Higher Education (Bologna Plan), is to promote the professional competencies needed to deal with typical and emerging problems of the future profession of our students (psycho-educational consultants).
  
- b) In order to achieve this, it is essential to confront students with real teaching situations, where contexts and problems keep a high resemblance with the ones students will find later on during his professional practice.

In order for learning-service to be effective, apart from facilitating the interaction between university students and school teachers, the collaboration is structured according to the following objectives:

- To promote reciprocal training and learning between UAB Psychology students and school teachers.
- To promote the acquisition of autonomous learning strategies of from preschool, primary, secondary and university students who participate in the project.
- To produce educational materials (text, audiovisual and multimedia) on teaching learning strategies, good educational practices, etc.

Three mechanisms guide the process of constant interaction and collaboration between school teachers and university students around the Teaching Unit: data collection about students, the classroom, the context/institution and the teacher; short in-service teachers training sessions in their schools about a certain teaching method or material; and previous presentation of the teaching unit to the course teachers, when students receive feedback that allows them to improve the unit. This final product, the Teaching Unit, is given to the school

teachers so they can use it in their practice, and it is included in the project database.

As a result of the continuing implementation of the project, the platform [http://www.sinte.es/arc\\_pro/](http://www.sinte.es/arc_pro/) was created, in order to gather the best Teaching Units developed since the first edition of the project. This page is a database of good practices useful for teachers looking to innovate in their daily practice. Materials can be searched by level of education, courses, teaching strategies being developed or strategic knowledge that is applied<sup>1</sup>.

To materialise the participation in this project, in the practical lessons there is time to apply the contents, solve questions, and receive feedback on products and on the resolution process. Some sessions consist of autonomous work, where students should collect data from other students and from the school (by interviewing teachers, applying questionnaires to students at school, etc.) and analyse them in order to pinpoint the objectives and design the activities they will present as a final product.

At the organizational level, at the beginning of the course we contact several preschools, primary and secondary schools, and more recently, also some university departments that are part of the project. Each year, some teachers of these schools decide to take part voluntarily in the project —most of them repeat the experience— and share with students of our course their own knowledge, objectives and also students. In turn, teachers provide guidance on some of the methods and strategies that should be used to deal with the content they want to teach. This information exchange will be consistent throughout the course, both in person or on-line.

Finally, it should be noted that the development of the teaching unit is done in teams as occurs in the workplace where collaboration between professionals is necessary to achieve an objective. Teams are composed of up to five students and have a cooperative structure. This teaching methodology is one of the best in promoting the acquisition of the social skills needed to develop

competencies. At the same time, it facilitates experimentation of strategies, since they can practise in a real and safe context (peer group) by applying the knowledge during the interactions by practising.

The distribution of roles is the best characteristic to a cooperative structure in which every student is actively involved (Topping, 2005). In our case, the roles are: a curriculum content specialist, a teaching methodology specialist, a learning method specialist and a coordinator. The coordinator is chosen on the basis of the initial assessment (those who obtained higher scores) and the others are chosen by consensus based on knowledge and personal motivations. Apart from structuring interaction, we as course teachers mediate to make interaction effective by solving the problems reported through the follow-up tools we apply (questionnaires, minutes of meetings...).

Once the general information on the course is detailed, as well as its structure and methodology, we will now explain the assessment, focusing on those activities and instruments that allow us to collect data to adjust educational support, facilitate students' self-regulation and prove they have developed the professional competencies of a psycho-educational consultant.

### **The Authentic and Formative Assessment in the Development of Professional Competencies**

We will now examine in-depth the assessment activities aimed at meeting the four purposes we mentioned earlier, that is, accreditation of the progress, assessment of the results, learning and teaching regulation. The emphasis is on analysing the learning and teaching regulation processes, but maintaining our goal of accrediting and judging the degree of acquisition of competencies. In *Table 1* we summarize the basic characteristics of each assessment activity we carry out, explained below.

*Table 1. Implemented assessment activities and their characteristics*

	<b>Purpose of the assessment</b>	<b>Person who assesses</b>	<b>Time of application</b>	
Assessment Activity	Why do we assess?	Who assesses?	When do we assess?	How
Prior knowledge initial test	Formative	Teacher	Prior to the course	Exam
Online follow-up questionnaire	Formative Educational	Teacher Students	Throughout the course	Open
Team contract: roles, organization and rules	Educational	Students	Throughout the course	Compl docu
Shared quality indicators	Educational	Students	Throughout the course	Score
Teaching Unit preparation guide	Educational	Students	Throughout the course	Prepa
Working minutes on team meetings	Formative Educational	Teacher Students	Throughout the course	Temp
Feedback on the Teaching Unit	Formative Result	Teacher	In the middle of the process	Docu corre
Presentation of the Didactic Unit	Result/Product	Teacher Teachers	End of the course	Asse
Case resolution test	Result/Product	Teacher	End of the course	Exam
Questionnaire on the course	Formative	Teacher	End of the course	Open

First, we will refer to the assessment activities focused on adjusting the teaching processes that are planned and implemented. This type of evaluation, performed by teachers on their own practice, largely determines the effectiveness of course program and the efficiency of the support provided to students. The aim is, on the one hand, to collect indicators to optimize time, resources and teaching support and, on the other, to be transparent about what we will do and what we expect our students to do.

At the beginning of the course, a prior knowledge assessment is carried out in order to adjust the level of deepening of the contents and to know students' profiles so we can build heterogeneous teams in which peer support is effective. In this initial evaluation, they must analyse a case in which three teachers of the same course —social sciences— teach the same content —meteorology concepts— to a group of high-school students. They use different teaching methods and express different views about the sense of learning their course. On the other hand, students have to indicate their motivation towards the course and their professional interests, whether linked to Education or to other branches of Psychology. The correction of this test and the information obtained on students' interests allows us to form heterogeneous groups, in terms of knowledge (high, medium and low), level of motivation and

interest in the course and, as far as possible, we try to distribute male students, always a minority, among teams.

Once lessons start and teams are organized, it is important to collect information on how objectives are being achieved. We employ a follow-up questionnaire (see Appendix3) after each lessons to assess what students value regarding: the clarity, interest and utility of the session, the support and motivation students claim to have had, unsolved questions, recommendations for the teacher to improve the course and issues they would like to address.

This questionnaire, designed in an online format (Google Form) and with a response time lower than 5 minutes, is a formative assessment activity aimed at promoting reflection about learning and assessment conceptions. The simple fact of asking students how they "experience" the lessons at a curriculum and emotional level increases their engagement, as they feel they are part of a community built around a shared project. At the same time, having to assess the course activity helps students see they can also assess themselves and others. The fact that the course teacher is the first one to be assessed boosts this idea and a positive view of the assessment.

The questionnaire is also an instrument that influences the quality of education, because it provides data on how students learn, thus allowing us to redirect the activities planned, solve doubts and clarify content so that students achieve the learning goals. In an evaluation system based on a final exam, this information is not revealed until the end of the course, when there is no time to redirect the process. But above all, the questionnaire serves to adjust expectations and discuss about the topics and content that we should cover in order to move closer to the shared objective of counselling real teachers and thus, learn how to learn.

Finally, to collect general data about the organization and satisfaction with the course, we apply a final questionnaire to assess the course development and implement changes in the following years. These changes are shared with the new students in order to show the functionality of these processes and then value them again.

Next, we are going to describe the formative evaluation activities aimed at collecting indicators about the process and facilitating students' self-regulation. In this case, the instruments used have the ability to serve teacher and students in two ways: to show the learning indicators achieved by students and guide students on the process they should follow and on its quality levels.

On the one hand, we plan assessment activities directed by the teacher that are aimed at the self-regulation of learning. The first block of activities involves the delivery of qualitative feedback on the product under construction (the Teaching Unit). Feedback analyses the work done so far by commenting on the positive advances and the contents that should be revised in order to improve the product. Thus, this evaluation ensures that students stay involved in their work while reducing their anxiety, since they know what they need to improve and have the time to do it.

The second block of activities aims at evaluating teamwork. As we mentioned above, in order for learning to be truly cooperative, we need to structure and regulate interaction among students. To do so, we collect and assess each meeting minutes. Moreover, in the weekly follow-up questionnaire we include a section about the level of compliance of the objectives during that week, the involvement of team members, the task performed by the coordinator and the aspects they think they should improve on their performance.

Furthermore, we offer students tools designed to be used during the whole process to self-regulate the learnings, having access to them whenever they consider it necessary. We are not talking about resources such as consulting previous works, books and online information, or tutoring sessions with teachers, but about documents explicitly developed to judge the process and the outcome. As for the resolution process of the authentic problem, which is the development of the Teaching Unit, students have a guide to create it and quality indicators on the characteristics and content of the unit. The instrument also includes the quantitative criteria for corrections, so that students know what to do, how to do it and how their work will be assessed according to those levels of quality. Regarding groups, at the beginning of the course each one of them is

told to write down a team contract (see Appendix 1) in which they describe the distribution of roles and the overall planning and they agree on certain labour standards so that they can predict potential incidents and anticipate solutions as would be the case in a real context.

Thirdly, as we explained when defining assessment purposes, it is necessary to certify students' learning, a crucial fact in university studies in which obtaining a degree leads to the accreditation to work as a professional in a real context. Therefore, it is of the utmost importance to ensure and account for the acquisition of students' competencies.

At this point, we have a great deal of information on the actions and progress achieved by each group and we know quite precisely their progression. However, this is not enough to give an accreditation because, at the end, what really determines professionals' competency in real life is whether they respond and solve the problem or a task at hand. For that reason, we assess the product by recreating an authentic situation: the presentation of the Teaching Unit to the teachers who requested our help. These teachers come to the university to judge the work of the prospective consultants, providing their views and assessing, with a maximum of two points out of ten, the designed project. This final activity of authentic evaluation allows students to show *in site* the competencies developed and course teachers to evaluate them in a real practice context.

Also, considering there are a wide variety of problems to face as future educational consultants, we apply an individual assessment test involving the resolution of a plausible case. To solve this test, students have free internet access, notes and materials previously designed for the occasion, and the possibility of using their mobile phones or to pose a question to the teacher. As a result, conditions closely resemble a situation in which, working on their own as consultants, they face a new problem where the knowledge and strategies developed during the creation of the Teaching Unit could be transferred. Thus, the course teacher ensures not only that the knowledge and strategies planned have been achieved, but also that promoted and experienced professional competencies have been developed.

Finally, students' level of acquisition of the objectives must be accounted for. For this reason, the instruments used to assess the product and the case resolution (guide for the preparation of the product, presentation and final exam) have rubrics with qualitative and quantitative criteria. In this way, we can put a final grade that will be part of the student record.

In short, in higher education we can lose the fear to innovate thanks to the activity of sharing assessment criteria through documents and instruments such as the orientation basis, the tables of indicators or the assessment rubrics (see Appendix 2). Excuses such as that assessing the complexity of learning is detrimental to objective or fair assessment would not be valid, since when sharing product and process criteria allows for judging and assessing the acquisition of competencies.

Moreover, by referring to authenticity, we must remember that in real life processes differ according to people, context and time, even if knowledge and strategies are similar. Therefore, by properly structuring the evaluation system with agreed objectives, clear criteria for correction, shared quality indicators and process analysis, we can estimate quite objectively the whole range of evidences and results and have solid arguments to determine whether students have been able to solve the problem.

## RESULTS

We conducted a study aimed at analysing the effects of the formative and authentic assessment on students' learning. We focused on the final assessment, the case resolution activity. Our hypothesis was that grades would be higher because students could use class notes during the final assessment test.

To confirm our hypothesis we confronted two groups of students in two assessment situations: one group had access to the materials (notes and other information) during the test, and the other did not. The case activity was the same for both groups. After doing the activity, we marked all the answers and compared the results.

If we analyse the results of each group (see Table 2), we observe that the group that had access to the information during the test obtained a higher grade than the other group, showing that letting students use their notes in a final test improves their performance.

*Table 2. Grades in the final assessment for both*

Groups		Final assessment
Group without notes (n=38)	Average	6,08
	Minimum	3,67
	Maximum	8,33
	SD	1,18
Group with notes (n=27)		6,73
	Average	4,67
	Minimum	8,67
	Maximum	1,17

However, although significative, the difference between groups is quite small; a positive result if we take into consideration that an authentic case resolution situation like the one we used does not require extra information. Moreover, the small difference also supports the idea that both group developed professional competences in the process of an authentic learning combined with a formative assessment, and thus they were able to solve the case.

On the other hand, in order to see whether participants valued this type of authentic teaching, students were asked to answer the final survey on satisfaction (described above along with the other instruments used in the course). School teachers also responded to a questionnaire about their satisfaction with the collaboration.

Both students and teachers valued the counselling process. Students mentioned that the possibility to act in a real school context promoted their motivation and gave functionality to the contents learnt in class. They also mentioned problems related with the lack of time to do the final Project and some difficulties in the group coordination. In turn, teachers manifested their intention to continue their collaboration in the following years. They valued the teaching unit as a resource they would put into practice.

## **LIGHTS AND SHADOWS IN EDUCATIONAL INNOVATION BASED ON AUTHENTICITY**

Teaching Innovation processes usually demand great knowledge of the subject matter as well as teaching strategies based on a sound psycho-educational theoretical framework to justify their selection. At university level, teacher training is commonly aimed at increasing disciplinary knowledge, and, to a lesser extent, methodological knowledge. However, following our experience and some studies on professional identity (Freese, 2006; Kreber, 2010, Lamote & Engels, 2010; Monereo, Weise & Alvarez, 2013), we can assert that what really ensures that innovation occurs and is sustained is the knowledge about competencies (conceptions, strategies and feelings), the class group and the

context in which the teaching-learning processes (resources, regulations, traditions...) will occur. From the data collected in the real context, teachers can focus on acquiring strategies to address the most common incidents and consider this practice as an opportunity to increase his teaching competency and build a more conscious and satisfying identity.

Conducting activities to know how students learn, live and conceptualize their learning, their new concerns and arising issues greatly facilitates the introduction of appropriate changes in the university courses. This two-way communication allows us to do something that appears to be prohibited in higher education: to connect with students, encouraging them to actively participate in their own learning, to accompany and teach them how to self-regulate (instead of believing they know how to do it or think they should know it).

Another benefit of the innovation is related to the ultimate aim of the course: students' development of the professional competencies of a psycho-educational consultant. We can say that all students who were involved in the learning process acquired the knowledge and strategies needed to ensure their application in the real demand and defend them in front of teachers, each student at a different level of achievement (as they also had different previous competencies and knowledge).

The results support that, by performing authentic activities, learning is more functional, motivating and effective for students, arousing positive attitudes toward teamwork and the profession. And all this despite the fact that this type of approach requires more time and more tasks than a simple dossier or a single exam at the end of the course.

The participation in real consulting situations acts in two ways: first, it assigns students responsibility and commitment, since the successful performance of a situation or task depends partially on them; and second, it maintains a certain tension and dedication given that dynamic situations require a rather continuous attention, a genuine immersion in the professional community and the use of

multiple resources and supports. To quote the title of this chapter, "as the life [of a consultant] itself".

The limitations of this evaluation system are more related to the lack of resources than to the method itself. We are still far from actually using the full potential of current information networks and technologies. We are not referring to the provision of resources in different formats (our follow-up questionnaires are *online*, mail communications, contents on a Moodle platform, etc.) but to the effective management of the data we may dynamically and quickly collect, analyse and return.

## **NEW PURPOSES FOR THE AUTHENTIC EVALUATION AND LEARNING**

With regard to the lack of resources, we think that if we have these measuring tools at our disposal, we can cover more information about the learning process (how students think, the quality of their group interactions, the way they analyse the information, what representation systems are more effective for them, etc.) and thus, qualitatively improve the teaching support and extend it to a larger number of students per classroom in an individualized way.

As for the second limitation, we would need technical and functional instruments, which contain and are built from the analysed routes of resolution with an in-depth data collection, and which specify a greater number of variables for each assessment indicator. It must be considered that, at the same time, these instruments should have a practical and especially feasible use, this is, that temporary and human resources (in terms of teachers' ideas, emotions, etc.) allow it.

In short, we strongly defend and recommend the use of a methodology based on authenticity and formative evaluation, as it greatly improves the development of professional competencies, with special emphasis on students' self-regulation of learning and on the construction of their professional role. It must be stressed that these changes require a strict organization of time and resources, as well as instruments adapted to the context in a way that all activities are meaningful and functional. We must highlight that these changes

require a strict organization of time and resources, as well as a set of instruments adjusted to the context, in order for activities to be meaningful and functional and authentic evaluation to promote the development of professional competencies.

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## KEY TERMS AND DEFINITIONS

**Authentic evaluation:** Set of evaluation methods that are characterized by a high degree of realism (similar to a real situation), relevance (connection with the near context) and socialization (participation in a community).

**Cooperative learning:** Learning based on peer support in order to make it more effective. Cooperative learning methods are characterized by the structuring of the task and the distribution of responsibilities among team members. The conditions for cooperative learning to be effective are: positive interdependence, individual accountability, positive interactions, development of social skills and self-reflection of the team.

**Formative assessment:** Type of evaluation whose objective is to collect indicators about how students learn to give them feedback that allows them improve.

**Learning strategies:** All strategic actions are characterized by the use of knowledge (concepts, procedures and values) and skills to achieve a goal. Strategies are composed of three key moments: planning, self-regulation and self-evaluation.

**Professional competencies:** Activation of knowledge and strategies for the effective and efficient resolution of a real problem that occurs in a certain context. The professional competencies are activated in a situation where a person has to act in accordance to the expectations of a professional community; in our case, in accordance to the role of educational counsellors.

**Service-learning:** Learning that occurs when learners participate in a community and work to a real need of this community. For that, the process of collaboration is structured by combining activities of reflection about the practice and new intervention processes.

**Teaching strategies:** Set of methods that teach students to think, guiding them in the process of appropriation of the contents through a cession of control (raising students' autonomy).

## APPENDIX 1. Team contract

Name of the team:

ROLE	NAME	PHONE NUMBER	E-MAIL
Coordinator			
Responsible for Content			
Responsible for Learning Strategies			
Responsible for Teaching Strategies			

### Minutes of the meetings

Responsible for minute-writing	
Responsible for sending questions	

### Internal regulations (faults and consequences)

RULES	CONSEQUENCES
<p>Everyone will have to attend team meetings in which it is agreed that all members must be present.</p>	<ol style="list-style-type: none"> <li>1. In the event of missing a meeting, the person will have to justify his absence and find ways to compensate it (to send the task in advance, to expand a section, to perform that task assigned to him by the team...)</li> <li>2. In the event of missing more than two sessions without just cause, the remaining members will ask him to change his attitude and if he does not, they will vote for or against his tenure in the team.</li> </ol>
.....	.....

Signatures,

Coordinator

Resp. Content

Resp. Learning  
Strategies

Resp. Teaching  
Strategies

## APPENDIX2. INDICATORS AND QUANTIFICATION FOR THE ASSESSMENT OF THE TEACHING GUIDE

TEAM	
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<b>Presentation/Title (2%)</b>	<b>Context/Problems/Contents (10%)</b>	<b>Assessment (4%)</b>	<b>Documentation (2%)</b>	<b>Diversity (10%)</b>	<b>Sessions Development (13%)</b>	<b>Critical incident (7%)</b>	<b>Annexes (1%)</b>	<b>Others (1%)</b>	<b>GRADE</b>
Suggestive title: 1% Presentation: clear and motivating 1%	<ul style="list-style-type: none"> <li>- Clear and complete context 1%</li> <li>- Authentic problems and complexity level 6%</li> <li>- Consistent contents 3%</li> </ul>	<ul style="list-style-type: none"> <li>- Formative and summative evaluation: 2%</li> <li>- Consistent weighting: 2%</li> </ul>	<ul style="list-style-type: none"> <li>- Varied (paper and digital): 1%</li> <li>- Updated and relevant: 1%</li> </ul>	<ul style="list-style-type: none"> <li>- Students data: 1%</li> <li>- Charts and interpretation: 3%</li> <li>- Complete and relevant guidelines: 5%</li> <li>- Others: 1%</li> </ul>	<ul style="list-style-type: none"> <li>- Complete and coherent sequence: 2%</li> <li>- Relevant contents: 3%</li> <li>- Appropriate teaching methods: 3%</li> <li>- Appropriate learning strategies: 3%</li> <li>- Star interest activity: 1%</li> <li>- Others: 1%</li> </ul>	<ul style="list-style-type: none"> <li>- Background and description (1%)</li> <li>- Actors (2%)</li> <li>- Intervention: what to intervene on (2%), how to intervene (1%) and indicators of change (1%)</li> </ul>	<ul style="list-style-type: none"> <li>- Materials</li> <li>- Self-assessment</li> </ul>	<ul style="list-style-type: none"> <li>- Journal, summaries, tools, artwork, etc.</li> </ul>	

### APPENDIX3. CLASSES AND TEAMWORK FOLLOW-UP QUESTIONNAIRE

This follow-up questionnaire of the Course “*Teaching and Learning Strategies*” (year 2014-2015) aims to collect information to help adjust educational assistance and improve learning. It's anonymous, so please respond sincerely. Thank you very much!

\*You can only answer once, after each lesson and when the teacher instructs you to.

Estimated time: 5 minutes.

\*Mandatory

**Name of the team\_number of student \***

**Session date \***

Regarding the session...

**Rate clarity \***

1 2 3 4 5 6 7 8 9 10

Little           Much

**Rate interest and usefulness \***

1 2 3 4 5 6 7 8 9 10

Little           Much

**Rate your level of attention/motivation \***

1 2 3 4 5 6 7 8 9 10

Little           Much

**Indicate the questions you still have so that we can discuss them in the next lesson and complement the explanation with additional information.**

Is there any issue you would like us to introduce? Tell us which one.

Finally, any suggestions for improving classes (regarding contents, methods, activities, etc.) will be helpful.

Regarding teamwork...

**Rate the compliance with the objectives during this week \***

1 2 3 4 5 6 7 8 9 10

Little           Much

**Rate the involvement of the rest of members during this week \***

1 2 3 4 5 6 7 8 9 10

Little           Much

**Rate the work performed by the coordinator during this week \***

1 2 3 4 5 6 7 8 9 10

Little           Much

Finally, please indicate the aspects to improve in the performance of your team

## APPENDIX4. ORIENTATION FOR OBTAINING INFORMATION

### 1. About the school, the course and classroom students, the TU content, the teacher:

#### **a) Contents to be developed in the Teaching Unit**

Programming (objectives, contents, procedures, activities...)

Materials (textbooks, sheets, etc.)

Difficulties and typical mistakes

Test, assessment

Etc.

#### **b) Students from the class:**

Number

Gender

Level of performance

Level of motivation

Preferences: input-output, grouping (habit of teamwork), persistence, rate of learning, work habits-autonomy, discipline, interaction with others, affective climate, etc.

Students with specific characteristics or difficulties: language, sensory disabilities, behavioural problems, excessive shyness, bands, couples, special gifts, leadership, delinquency, drugs, etc.

Etc.

#### **c) Teaching characteristics and preferences:**

Ideal class

Presentation of the educational programme of previous years

Conceptions, beliefs

Representation of students of this class

Expectations, motivations, interests

Preferences as a teacher

Etc....

#### **d) Classroom characteristics, spaces, time and available resources:**

Sketch

Furniture, spaces

Times, schedules...

Resources: blackboard, video, audio, PowerPoint, computers-Internet (Wi-Fi), library, others...

Etc...

## **2. About the procedure – strategy:**

### ***a) To obtain information***

Note-taking (literal, graphic, structural, procedural, pattern model ...)

Internet search (search engines, directories, webs, meta-search engines...)

### ***b) To interpret information***

Representation of a particular idea in different languages (verbal, mathematical, graphic, symbolic...)

### ***c) To analyse or interpret information***

Data analysis (underlining, synoptic tables, statistical charts, data tables...)

### ***d) To understand and order information***

Interrogation patterns

Concept maps

Mind maps

Heuristic UVE (or Gowin's V)

Flow charts

Timelines

Schemata

Double-entry tables

### ***e) To communicate information***

Scripts

Revision of drafts

Collaborative writing

## **3. About teaching methods**

**a) Strategy presentation**

Modelling

Case analysis and discussion

Role-plays

Interviews with experts

Thinking cases

**b) Guided practice**

Self-interrogative patterns

Interrogative guides

Methods with cooperative groups: reciprocal teaching, jigsaw or star, roleplaying

Methods with collaborative groups: peer tutoring, roleplaying

**c) Autonomous practice and Assessment**

Progressive dossier of notes

Problems

Portfolios

Retrospective reports

Cognitive analysis of tasks

Incidents or simulations

Projects

**3. About the Critical Incident**

Information on a particularly shocking situation that has distressed and unsettled the teacher.

## ENDNOTES

<sup>1</sup>This project has been recognized by the Department of Education of the local regional government, Generalitat de Catalunya, and its use is recommended for all teachers in the public school system.