

The challenges of competence-based assessment in the educational field

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Abstract

The objective of this article is to make a contribution to the discussion and reflection of the formative role of the competence-based assessments in the educational field. Its relationship with the curriculum profiles that is oriented to the new labour context is established. The need to create guidelines, designs, implementations and instrumental developments to determine the impact of learning by competences as a way of evidencing the appropriation of complex integral knowledge is sustained. In order to promote a more participatory and democratic approach to the evaluation system, it is assumed the challenge of competence-based assessments that involve incorporating the main actors of the teaching and learning process. For this purpose a brief description and theoretical-conceptual analysis on the competences in the educational field is carried out. Assessment of competence is pinpointed as a new practice, highlighting the integral and formative criteria of these practices. Additionally, it is analysed how the evaluation by competences can improve learning and pedagogical practices. In conclusion, competence-based assessments are presented as a balance between opportunities and challenges for the educational field, especially those related to the concern in the process prior to the final result of a learning process.

Keywords

Competences – Competence-based assessment – Learning *goals*.

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Los desafíos de la evaluación por competencias en el ámbito educativo

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Resumen

Este artículo tiene por objetivo principal ser un aporte a las discusiones y reflexiones sobre el rol formativo de la evaluación por competencias en el ámbito educativo. Se plantea su relación con los perfiles curriculares que se orientan a los nuevos contextos laborales. Se sostiene la necesidad de establecer lineamientos, diseños, implementaciones y desarrollos instrumentales para determinar los impactos de los aprendizajes por competencias como una forma de evidenciar la apropiación de saberes integrales complejos. Se asume el desafío que tiene la práctica evaluativa por competencias al incorporar a los principales actores del proceso de enseñanza y aprendizaje, a objeto de realizar una evaluación más participativa y democrática. Para ello se realiza una breve descripción y análisis teórico-conceptual sobre las competencias en el mundo educativo. Se profundiza sobre la evaluación por competencias como una nueva práctica evaluativa destacando los criterios integrales y formativos de estas prácticas. Se analiza cómo la evaluación por competencias puede orientar e influir en el mejoramiento de los aprendizajes y prácticas pedagógicas. Para concluir se plantean unas consideraciones finales de la evaluación por competencias a modo de balance y desafíos para el ámbito educativo, sobre todo aquellos relacionados por la preocupación en el proceso previo al resultado final de un producto de aprendizaje.

Palabras clave

Competencias – Evaluación por competencias – Aprendizajes.

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Education, curriculum, evaluation, and competence

Over the last 20 years the world of education has undergone a process of deep discussion on the role of schools, colleges, and in VET educational practice in facing the challenges of the 21st century. Specifically, how to reorient teaching practice, didactics, evaluation systems, and curricular articulation to deliver the tools and skills required by the students so they can perform positively in society (TEJADA; RUÍZ, 2016; JOVER; GARCÍA, 2015; LARSEN; GAERTNER, 2015; GARCÍA et al., 2008; CANO, 2008). The response of the European Education Community, the OECD (Organization for Economic Cooperation and Development) (2002), and Unesco (2005) is the implementation of educational systems oriented by competences.

The profiles by competence have arisen as the vanguard references for the articulation of the curricula to create greater connections between school and the workforce to build assessment of higher quality.

Their orientation is supported by attempting to establish solid and integrated links between a learning formation capable of responding to the problems of the labor world and the need to promote the development of individual and collective abilities to improve decision-making. This includes different dimensions of what we understand by educational-school environment, since these institutions must incorporate the development of competences closely related to the processes of teaching for life.

Although this change of paradigm in the field of education (TEJADA; RUÍZ, 2016; CANO, 2008; 2015; DE MIGUEL, 2005; PERRENOUD, 2004; LE BOTERF, 2005) has been strengthened by curricular and pedagogic issues in higher education institutions as a way to incorporate the labor transformations that have occurred at present, it also manifests important challenges for school environments in the integration of

new educational logic that attempt to face the changes of tomorrow.

The development of the discussions on the curricular profiles by competences have centered on the sphere of higher education (BOLÍVAR, 2015; COLL; MAURI; ROCHERA, 2012; CASANOVA, 2012; CANO, 2008), mainly on how to implement curricular designs that are integrated with the corresponding career finishing profiles. However, in general terms, the discussions have not gone deeply into the relations between school and higher education in the continuous training of the students referred to the educational innovation processes centered on the construction of competences for life. Furthermore, the implementation and monitoring of the achievement of these learning goals have not gone together with the development and evaluation of designs and processes that put in evidence the impact of the generic transferable competences on the training of the students.

In this respect, the evaluation has been partially left aside from the de curricular innovation processes and from the theoretical-educational discussions on their role in the improvement of the competences. In turn, the difficulty lies in what we understand by *competences* and how they can be transformed into an *evaluative object* that has its own design, implementation, and formalization in the different evaluation instruments. On the contrary, the issue is how we can incorporate them in the teaching-learning process within higher and school education if there still is no clarity on the curricular orientations and the definitions of the competences in the national educational system. This is where the first difficulty arises: what are the competences and how do we integrate them in the evaluation practices and cultures of the educational institutions.

To delve deeper into these aspects, the paper presents a brief theoretical-conceptual description and analysis of competence in the educational field. It then goes into the

competence evaluations as a new evaluation practice, highlighting the integral and formative criteria that these practices must have in evaluation. A third section deals with how competence evaluation can orient and influence the improvement of pedagogical learning and practice. Finally, it presents the conclusions –which are not meant to be determining but rather orienting for a new evaluation practice –as a balance and challenges in the educational field.

Competence as the integration of complex knowledge

The change in the educational paradigm, propelled over the last 20 years by competence, has involved an interesting debate on what is understood by competence. Specifically, the development of an educational conception that attempts to link and establish relations of complex knowledge and how this succeeds in deepening and consolidating learning for life from a perspective that the individual can integrate this in the world of work (BOLÍVAR, 2015). However, this technifying-operational view reduces the complexity of delimiting and defining competence.

Following the postulates of the interpretive paradigm on competence (TARDIF, 2008; TEJADA; RUÍZ, 2016; LE BOTERF, 2010), they must be visualized as a combined and integrated learning from knowledge, procedures, and attitudes that are only definable in action and in experience to achieve their development and practice (TEJADA, 2012). In fact, it incorporates the context and the resources that the individual is capable of moving starting from the analysis of a given set of problems with the purpose of making the proper decisions for facing that context.

Therefore, it is not possible to *transmit* that learning from the teacher-student relationship, rather it is the teacher-student

interaction that builds the learning from the execution of the educational activities and conditions that force moving the resources of the subject (learner) to face a giving situation (ION; SILVA; CANO, 2013; CANO, 2008).

From this conceptual delimitation it is important to get the following constitutive aspects of competence:

1. Competence is the combined learning that constitutes *being, knowing to do, and knowing to be*. The domain of these knowledge –conceptual, procedural, and attitudinal– are in relation to *being capable* of acting effectively in the face of school and labor contexts. Here, capacity as understood by Perrenoud (2004) has a flexible and creative character, close to a cognitivist perspective where the subject can choose and mobilize his personal and network resources (data, theories, specialists, among others), and perform with them a contextualized attribution in a space and time, and sustained by a relation for the transfer of these capacities to solving problems (CANO, 2008).

This does not simply mean the fact of *knowing how to act*. As stated by various conceptions (PERRENOUD, 2004; LASNIER, 2000; FERNÁNDEZ, 2005, 2010; LE BOTERF, 2005; TEJADA; RUÍZ, 2016), being competent means to have the capacity to make use of professional-educational equipment and the adequate resources to develop an activity efficiently (TEJADA, 2011; TEJADA; RUÍZ, 2016). To that end, it is necessary to not reduce the competences to the sum of the three-dimensional factors of education, but rather to analyze them as integrated sets that interact with each other and cannot be isolated, because they depend on a specific and personal factor context to achieve an appropriate development in the field that it is desired to transfer.

2. The competences can only be defined and analyzed in the action (TEJADA; RUÍZ, 2016; GARCÍA et al., 2008; CANO, 2008; DE MIGUEL, 2005; PERRENOUD, 2004). The competence resides in the ability to mobilize the intellectual, contextual, personal, and

material resources for facing a given problem that goes beyond *owning*, and rather adduce the need of being able to transfer or mobilize those resources for solving the contextual situation.

3. They are linked with personality factors, but they can be learned. Going from knowing to action means establishing a reconfiguration, a reconstruction as a practice-action process sustained by the dialectic development that interacts with the context and the resources. Experience is here the elemental field for achieving the links of the *components* that make up the competences. One is never *competent*, and therefore one learns along life and depends on the needs imposed by the context change, the occupation, or even their restatement.

4. The competences make sense in the action and practice from experience. Reflection is essential for not replicating mechanically a given action from a particular context. This implies a reflection on the practice itself in the sense of strengthening, correcting, and feeding back individually and collectively as a learning mode the mobilization and transfer of resources oriented towards the solution and continuous improvement of the problem or situation that is faced. As pointed out by Le Boterf (2010), it is the situation what determines a contextualized response. From this idea, the *direction* of the competence acts from the analysis (singular and plural) with the purpose of using the adequate resources (knowledge) according to the diagnosed need.

In short, this perspective on competences states that they are an *assemblage* with an interactive dynamic character between the educational agents, starting from a process that means distinguishing among *being competent* (action domain) and *having competence* (related to the resources o knowledge). It is therefore not sufficient to have the resources –knowledge– but it is also necessary to have clear when and how to use and transfer this knowledge considering the particular context in which

the individual operates (TEJADA; RUÍZ, 2016; TEJADA, 2011, 2012).

This brief theoretical-conceptual description has interesting implications on what to evaluate (evaluative object) and the procedures for effectively incorporating an evaluation that takes into account the competences as an interaction of knowledge. This puts us in the situation of whether the competence evaluation constitutes a new evaluative model or it can be visualized as a complement of other approaches aimed at putting in evidence the learning goals achieved in the students.

Competence-based assessment: Towards a new assessment practice?

The context imposed by globalization has generated new demands from the whole educational system, and with it the need to innovate and reformulate the pedagogical and evaluative practices. Therefore, the competences arise as a response to the need of articulating positively the knowledge from their holistic and integrated character with the abilities that the subjects must have to face in the world of work. That is why the competences arose as a response capable of facing the relations between academics, learning goals, and the labor challenges of the subjects. However, the doubt is how to transform these new contexts into redesigns or innovative formulations in the evaluative practices that operate with competence as an *evaluative object*. This conversion inserts evaluation in permanent tensions/challenges to approach these new practices in two levels (CANO, 2008).

First, evaluation is at a didactic crossroads (CANO, 2008) because it is the effect and cause of learning. Therefore, since it has the potential to orientate the curriculum, it can generate innovation spaces in the formative learning that it wants to implement. In turn, it can establish accurate guidelines on what, how,

when, where, and through which to evaluate. Just as it has been stated by Scriven (2007), Hall and Burke (2003), and Kaftan, Buck and Hall (2006), in what is formative, the essence of the evaluation as an integral process of learning and the construction of knowledge is at play, provided a formative design is established that strengthens those educational processes.

Second, the competence-based assessment forces the use of a diversity of instruments and the incorporation of different educational agents. Here the diagnostic, feedback, contextualization, registry, evidence, and results processes imply the incorporation of teachers, students, and administrators. This means a change of the evaluative practice to be able to integrate the competences in the learning processes and performance as a way of establishing links of the knowledge and contexts in which they can be transferred to improve decision-making. The basic idea is that the competence-based assessment can and must make explicit these relations of the design with the results obtained to contribute to the continuous improvement of learning.

That is why evaluation must contribute to the students' self-learning and self-regulation, with the purpose of making them more aware of their own practices and learning process. The sense of this premise is oriented towards having the instruments be designs not only for the development of a specific task, but also to involve levels of thought and challenges that include situations or contexts similar to those of reality. The basis is to strengthen and see how the tasks are solved, which are the strong points, and which must be improved or reformulated making use of the evaluative contexts and the learning practices as a reinforcement towards the development of learning for life.

As held by authors like Jaimes and Callejas (2009), evaluation must consider *knowing*, *knowing to do* and *knowing to be*, at which point especially the different learning

goals intersect from a transverse view, since they are positioned and constructed from the everyday education. As stated by Tobón "the competence evaluations [must] integrate the qualitative with the quantitative, because with words one can not measure, and with numbers one can not understand or explain" (2004, p.138), in the sense that both contribute to the improvement of the teaching-learning processes.

From this viewpoint competence-based assessment uses the concept of assessment in a multidimensional sense. Knust and Gómez (2009) hold that this viewpoint refers only to integral knowledge and to evaluative situations with an authentic character, giving preference to the processes more than to the final results. Therefore, evaluation becomes one of the more significant stimulus for the development of learning as a tool and a practice that orient the involvement of the students to promote reflection, self-evaluation, and self-regulation of the apprehended competences (KNUST; GÓMEZ, 2009).

In the same sense, Álvarez and Villardón (2006) bring up a more technical factor on competence-based assessment, stating that it must be understood as the set of activities that are part of a systematic process of gathering information, which must then be analyzed and interpreted, in order to issue judgments on the actions carried out by the subject, the community, or the evaluated institution. This requires necessarily the articulation of comparative educational criteria to sustain the decision-making.

Both definitions consider that competence-based assessment is a global construct, it is a body that must be designed and structured to strengthen the evaluative process. Moreover, criteria must be established that are necessary to be able to visualize and make evident the achievements reached by the students, teachers, and even by the educational unit itself that is searching for the continuous improvement of its learning goals –whether

they are institutional, curricular, organizational, or pedagogical-.

However, the literature has proposed conceptions of competence-base assessment centered on technical processes associated with the conformation of professional graduation profiles. With this view, the evaluative objective becomes quantitative insofar as it establishes generic guidelines to compare a *before* and an *after* of the training. So, Delgado and other authors (2005, p. 38-39) hold that competence-based assessment is:

[...] a systematic process for getting objective and useful information on which to sustain a value judgment on the design, the execution and the results of the training with the purpose of serving as a base for the pertinent decision making and for promoting the knowledge and understanding of the reasons for the successes and failures of the training. (DELGADO et al., 2005, p. 38-39).

From this definition we can point out two interesting ideas for discussion. On the one hand, this perspective emphasizes the result achieved, and therefore the competence evaluation acts as the certification process of the training established in the graduation profile. Here the educational agent is unidirectional, responsible for establishing the guarantee, specifying whether the institutional educational criteria proposed in the students' training have or have not been fulfilled. On the other hand, it states the interest on the results that the higher education is interested in strengthening, and points out the articulation existing between the academic training, the professional development plans, the institutional organization with the labor structures, and the changes that it has undergone in the last 30 years (ION; SILVA; CANO, 2013, ION; CANO, 2012). As indicated

by Ibáñez (2007), competence evaluation must care for the effectiveness of the study plans, ensuring the fulfillment and measurement of the achievement linked with the professional graduation profile.

With these same *functional* principles of competence evaluation, García and other authors (2008) hold that competence-based assessment requires its own evaluation model, in the sense that it takes up schematizing evaluative patterns and components clearly and synthetically, considering their archetypal representation, feedback processes, functions of the agents involved, and concrete sequences that make evident the developments of the learning achieved. However, the vision introduces an interesting notion to incorporate it in the competence evaluation as a process that accounts for complex and integral learning. The establishment of processing nodes that emphasize development and not merely the result, shows significant advance to be included in the instrumental designs and, of course, in the contextual activities, for testing the learning goals.

The consequences of these discussions on an integral or functional competence-based assessment allows indicating that the orientation desired in the consolidation of learning and knowledge related to the challenges of education in the 21st century is the most complex, contextualized, referenced, and above all, applied to decision making. Although it is not possible to forget the constitutive aspects of an educational and labor graduation profile, the achievement of these learning goals must be related to the development of complex competences, and therefore of an evaluation in the service of these objectives in terms of processes.

On these implications, in general terms authors like Cano (2008), Tejada (2012), Tejada and Ruiz (2016), and Tobón (2004) state the following:

Chart 1

Fundamental actions associated with competence.	Effects on the teaching-learning process and evaluation.	Examples of evaluative practices and instruments.
Integrate (skills, knowledge, dexterity, attitudes)	Show the integration of knowledge.	Projects, practicum, inductions, propedeutics.
Executions on the process.	Evaluate processing actions.	Holistic evaluative instruments (scales, rubrics, etc.)
Actions or problems in specific contexts.	Evaluate the learning in the context of when, how, and where (why those and not others).	Project simulations and formats for their application.
Integral development dynamics.	Evaluate and strengthen development (feedback).	Rubrics and evaluations that include diagnoses and progress.
Autonomy and self-learning.	Self-reflection and self-regulation of the learning.	Portfolios, discussion and interaction spaces such as forums, debates, etc.

Source: Own elaboration, based on Cano (2008).

These effects on evaluation can be synthesized following Bolívar's words:

The best way to evaluate competences is to put the subject facing a complex task, to see how he succeeds in understanding and solving it by mobilizing knowledge. The evaluation instruments used can not be limited to tests to see the degree of mastery of contents or objectives, but to propose some complex situations belonging to the family of situations defined by the competence, that would also require from the student a complex production to solve the situation, because it needs knowledge, attitudes, and metacognitive and strategic thought. (2008, p. 84).

Bolívar (2008; 2011; 2015) has also stated the need to reformulate the approaches and modes of the evaluation. Using the French example (2015), he proposes to incorporate the evaluative indicators considering the competences that the schools and universities want to promote as common and essential to the curriculum for the 21st century (BOLÍVAR, 2015). Here, what is fundamental is given by the standards of assessable learning goals, which have been integrated progressively in the national curriculum and in some higher education institutions. The bet is a transverse

evaluation with an authentic character (AHUMADA, 2001, 2005; DÍAZ-BARRIGA, 2011; DÍAZ-BARRIGA; BARROSO, 2014), procedural and focused on feedback as a practice to orient and strengthen the complex knowledge (DÍAZ-BARRIGA; BARROSO, 2014).

Therefore, we are in the presence of an interesting evaluative practice that brings together different theoretical and educational aspects of the last 20 years to incorporate them into competence-based assessment. A large part of the recommendations on how to approach this phenomenon are aimed at the interaction between the curricular, the practice, and the evaluation as a restatement of what *must* be learned and put in practice (BOLÍVAR, 2015). In fact, this does not mean the complete replacement or construction of the existing evaluative models (technical, subjectivist, critical, and mixed), but rather a challenge that complements visions coming from the constructivism and cognitivism partner in the teaching and learning processes.

The competences offer this opportunity, to reformulate the evaluative guidelines to break up with the traditional notions of the subject matter, the minimum content, and above all, the pre-established results without any capacity of expressing the transversality of the learning and the evaluation.

Competence-based assessment oriented towards the improvement of learning and pedagogical practices

Competence evaluation also puts its attention on the evaluating agents –students and teachers–. The change proposed by the competences inspired in the Common European Framework of Key Competences and the European Higher Education Area (EHEA) focus their effort on the formative processes of the students' learning expressed in competences. These foundations involve an emphasis on the educational processes developed by the students, but they do not ignore the role of the teachers as the evaluating agent guiding these processes –linked, for example, with hetero-evaluation, co-evaluation, and self-evaluation practices–. In fact, the need to strengthen the evaluation mechanisms forces the teachers to innovate constantly in their pedagogical practice to collaborate with the integral and autonomous learning processes by reinforcing evaluations with an authentic and contextual character (DÍAZ-BARRIGA; BARROSO, 2014).

That is why the evaluative procedures implemented by the teachers also allow reflecting one's own pedagogical practice with the purpose of getting a glimpse of the aspects that must be reformulated to strengthen the new requirements proposed by the competences. In this way, it becomes an essential need of the new evaluative practices for the teachers to allow the students to participate in the development of their own value judgments –for example, by means of co-evaluation and self-evaluation– on the work, actions, and reflections made, both individually and collectively, with the purpose of deepening and consolidating the awareness on the achievements and deficiencies detected in an integral and democratic learning environment oriented towards the interaction of the subjects.

To Ríos, these evaluative procedures take care not only of determining the acquired knowledge, but they also include the actions and reflections in a transverse way, pressing the students to an actual “[...] evaluative dialog [...] progressively dialectic...in which [the] actors turn into subjects that make valuations of themselves and of the others, in an exchange of personal subjectivities whose synthesis is the construction of the intersubjectivity.” (RÍOS, 2007, p. 5)

The author also points out that these reflective processes in which the students participate, collaborate fundamentally in the development of the critical and self-critical abilities, in addition to strengthening different attitudes related to their *knowing to be*, like responsibility, honesty, loyalty, and companionship, among others, which reinforce their integral development as individuals aware of their learning (RÍOS, 2007).

Therefore, evaluation can be seen as an element of the development of pedagogical practice and teaching. According to the ideas of Bolívar (2007; 2011; 2015), they can be structured in six points. The first one is related to the selection of competences as expected results of learning, based on the student's graduation profile. The second is the establishment of objectives in agreement with what is stipulated in the degree project, and facilitate the process of acquisition/development of competences. The third is the establishment of levels or indicators of achievements as evaluation criteria. The fourth is the definition de activities or tasks that allow the development of the competences. The fifth is the planning and making of tools that allow collecting data at different evaluation times. And finally, the sixth is issuing a reflection on the development of the evaluation system, allowing to analyze and assess the information to systematize decision-making. It is interesting to analyze this last point, when it is proposed from the Bologna declaration and the EHEA that the leading role in the learning process will fall on the students, with the teachers acting

only as a mediating guides of the learning, so the orientation of their practices must lead to strategies that allow them to *mediate/collaborate/guide* the learning levels.

From the praxis, the competence evaluation model requires the teachers, when they start the evaluation process, to tell the students which will be the expected goals or objectives. Similarly, the students must be taught to be critical with their own performance in order to collaborate in the construction of an awareness oriented towards self-evaluation. In other words, “they must have control of their own learning processes, of their strengths and weaknesses, to self- regulate their errors, strengthen them, and participate in the preparation of improvement plans” (JAIMES; CALLEJAS, 2009, p. 43).

When competence evaluation is considered as a model, we refer to what has been stated by García and other authors, understood as “the conceptual patterns that allow schematizing [...] the parts and the elements that want to be observed [...] exhibiting the frequency and sequence distributions in the ideal way” (GARCÍA et al., 2008, p. 103). The models are structured and synthetic visions that help the teachers and specialists in “the preparation and analysis of the object selected for its assessment” (p. 103). According to these authors, the evaluative procedures oriented towards strengthening and promoting teaching practice as a tool for the learning action must be guided by the following principles:

Formative orientation. The model allows the teachers to reflect and feed back on their action in teaching and state actions for its improvement.

Participative orientation. The evaluation/formation of the teaching practice is not prepared and implemented by the authorities of an educational institution or by a group of specialists other than the teachers. It is the teachers who are involved in the process and participate in its design.

Humanistic orientation. It considers the teacher as a person, as a human being, with concerns, interests, needs, emotions; and because of that it aims at the preservation of their dignity, self-esteem, and individuality.

Multidimensional approach. There are many traits, actions, conducts, and attitudes that gravitate around the daily teacher-student relation in the classroom. (p. 104).

The foundation of these statements is to organize evaluative practices that integrate the role of the teacher and of the student in the analysis and reflection of the progress based on competences. As stated by Jaimes and Callejas (2009), the sense is always the *mediation* to get the expected results. The sense of the mediation refers to the teaching action within the process to guide the students in the achievement of a given goal. Therefore, the evaluation from its temporalities and actions rises as a feedback process by means of which the teachers and the students get qualitative and quantitative information on the degree of construction and development of their learning in an integral way, taking into account the final results and the process, based on rules established democratically and consensually.

Competence evaluation in the educational field proposes a transformation not only in the evaluation area itself, but also in everything that concerns the process of teaching and learning. That is why teaching must stop being centered on lectures and on pencil and paper tests, because what is important in the approach in question is that the students should be practical and promoting subjects of their own learning in authentic contexts to encourage decision- making and knowledge transfer (LAHN, 2011). That is why it is recommended that teaching should address at least three learning areas: the cooperative, the problem based, and the case method (BENITO; CRUZ, 2005; RUÉ, 2007).

As pointed out by Benito and Cruz, competence-based assessment must consolidate the processes of:

[...] effective acquisition of the numerous competences that define each situation requires the students to learn by doing. It would be impossible to guarantee that our students will learn to communicate if in our teachings there is no space for them to present their work (2005, p. 15).

According to García and other authors (2008), they must guarantee the conduction of the teaching and learning processes considering the following educational and pedagogic criteria:

1. Manage the progression of the learning (lesson plan), considering the performance levels or learning standards and their procedural monitoring.

2. Apply the didactic interaction in the classroom, promoting the interrelation of the teaching and learning factors related to the achievement of the goals by means of the attainment of modalities, appropriations, resources, and adequate tools that promote a learning climate, and therefore strengthen the formative processes belonging to evaluation.

3. Use adequate communication forms to support the academic work, implying the communication of ideas, feelings, learning in a diversity of dialogical and practical contexts to make understandable the pedagogic and evaluative processes oriented towards the social and individual development of the learning goals achieved.

The idea is to put in evidence and consolidate the assessment and impact processes of the competence evaluation at the level of the teachers and students from the impact that it has on the teaching and learning. Therefore, we must evaluate the achievement of the learning diversifying the strategies and instruments according to the educational purposes, which must be involved with standards of quality

excellence for continuous improvement by following up the trajectories of teachers and students using the self-evaluation of performance and the reflection on the achieved learning.

In short, competence evaluation requires an evaluative model centered on the processes and procedures, basically on the ability of *knowing how to do*, but integrating the conjunction of the complex and integral learning. Moreover, it must show step by step results, and not only oriented towards the final result of a *product* of learning. The idea is to reinforce the abilities and competences of the students to deal with contexts of change and transfer of educational resources in different spaces centered on decision making, to avoid the mechanization of the competences as a way of reproducing the productive model. In the words of Bolívar, we must avoid falling into “the competence of the entrepreneurial and professional as a training model linked with the neoliberal policies that subordinate education to the demand of the labor market and the management of human resources” (2007, p. 42).

Conclusion

In view of the complexities of competence-based assessment, there is no model, approach, theory, or evaluating agent that can concentrate all the actions and procedures for making evident all its learning processes and achievements. As stated, the complex competences act in an integral manner in the teaching and learning processes, and therefore require evaluative practices that respond to different approaches or models. However, this is not an a priori limitation, but it rather allows, from an eclectic viewpoint, strengthening the development of evaluative innovations centered on authentic and contextual procedures to reinforce learning by competences.

This view tries to avoid the mechanization and automatic transfer of the evaluation and the curriculum by competences. Competence

evaluation cannot be focused only on the achievement of concrete objectives that account for their acquisition as abilities and learning for future development in the labor world. In the words of Bolívar (2007), we must overcome the reductionist and homogenizing dimension that the competence evaluation can present. Therefore, we must orient these new evaluative processes in the “strategic mobilization of the elements (knowledge, skills, and attitudes) as available resources” (VILLARDÓN, 2006, p. 61) that can be observed in practice and in the process. For this we must consider “the evaluation as an object, procedure, action, practice, and formative process for the development of competences to construct a more extensive and integral conception of evaluation oriented towards learning by competences” (p. 61).

That is why the educational field must strengthen the articulations between the academic and the labor worlds as one more aspect, but without any doubt it must not focus only on this kind of link. The opportunity lies in an evaluation for the development of the competences in an integral manner, as has been expressed through this work.

Therefore, it is necessary to reinforce the triangulation of the evaluating agents (TEJADA; RUÍZ, 2016), where students and teachers are main actors in the practices and evaluative actions in dialogical and consensual spaces on how to make the analysis and reflection of the achieved learning. Continuous improvement is the north, and because of that, strengthening real discussion spaces and designing contextualized activities help in this educational road.

Ultimately, we must visualize the competence evaluation approach in its formative sense and as an opportunity for the development of learning that reinforce and consolidate the process of self-learning and self-regulation of the pedagogical and student practices, promoting responsibility, criticism, and self-criticism of the students themselves so that they may improve their learning processes. This highlights the need to modify the institutional practices and evaluative cultures in both the higher level and the school level to implement designs and practices towards that end in formative and not merely instrumental terms, to ensure learning.

Referencias

- AHUMADA, Pedro. **La evaluación en una concepción de aprendizaje significativo**. Valparaíso: Ediciones Universitarias Universidad Católica de Valparaíso, 2001.
- AHUMADA, Pedro. La evaluación auténtica: un sistema para la obtención de evidencias y vivencias de los aprendizajes. **Perspectiva Educacional**, Viña del Mar, v. 45, n. 1, p.11-24, 2005.
- ÁLVAREZ, Concepción; VILLARDÓN, Lourdes. Planificar desde competencias para promover el aprendizaje. El reto de la sociedad del conocimiento para el profesorado universitario. **Cuadernos Monográficos del ICE**, Bilbao: 12, 2006.
- BENITO, Agueda; CRUZ, Ana. **Nuevas claves para la docencia universitaria**: en el espacio europeo de educación superior. Madrid: Narcea, 2005.
- BOLÍVAR, Antonio. **Ciudadanía y competencias básicas**. Sevilla: Fundación Ecoem, 2008.
- BOLÍVAR, Antonio. **Competencias básicas y currículo**. Madrid: Síntesis, 2010.
- BOLÍVAR, Antonio. **Diseñar y evaluar por competencias en la universidad**: el EEES como reto. Vigo: Universidad de Vigo, 2007. (Formación e innovación educativa na universidad).
- BOLÍVAR, Antonio. **Las competencias básicas para la vida más transversales**: buenas prácticas para su tratamiento en el centro educativo y en el aula. Guatemala: Ministerio de Educación, 2011. USAID del pueblo de los Estados Unidos de América. Reforma Educativa en el Aula.
- BOLÍVAR, Antonio. Un currículum común consensuado en torno al marco europeo de competencias clave: un análisis comparativo con el caso francés. **Revista de la Asociación de Inspectores de Educación de España**, Granada, n. 23, p. 1-35, 2015.
- CANO, María Elena. Evaluación de la formación: algunas lecciones aprendidas y algunos retos de futuro. **Educador**, Barcelona, v. 51, n. 1, p. 109-125, 2015.
- CANO, María Elena. La evaluación por competencias en la educación superior. **Profesorado**, Granada, v. 12, n. 3, p. 1-16, 2008.
- CASANOVA, María Antonia. Diseño curricular como factor de calidad educativa. **Revista Iberoamericana sobre Calidad, Eficacia y Cambio Educativo**, Madrid, v. 10, n. 4, p. 7-20, 2012.
- COLL, Cesar; MAURI, Teresa; ROCHERA, María José. La práctica de la evaluación como un contexto para aprender a ser un aprendiz competente. **Profesorado**, Granada, v. 16, n. 1, p. 49-59, 2012.
- DE MIGUEL, Mario. Cambio de paradigma metodológico en la educación superior: exigencias que conlleva. **Cuadernos de Integración Europea**, Valencia, n. 2, p. 16-27, 2005.
- DELGADO, Ana et al. **Competencias y diseño de la evaluación continua y final en el espacio europeo de educación superior**. Barcelona: Ministerio de Educación y Ciencia, 2005.
- DÍAZ BARRIGA, Ángel. Competencias en educación: corrientes de pensamiento e implicaciones para el currículo y el trabajo en el aula. **Revista Iberoamericana de Educación Superior**, México DF., v. 2, n. 5, p. 3-24, 2011.
- DÍAZ-BARRIGA, Frida; BARROSO, Ramsés. Diseño y validación de una propuesta de evaluación auténtica de competencias en un programa de formación de docentes de educación básica en México. **Perspectiva Educacional**, Viña del Mar, v. 53, n. 1, p. 36-56, 2014.
- FERNÁNDEZ, Amparo. La evaluación orientada al aprendizaje en un modelo de formación por competencias en la educación universitaria. **Revista de Docencia Universitaria**, Valencia, v. 8, n. 1, p. 11-34, 2010.
- FERNÁNDEZ, Amparo. **Nuevas metodologías docentes**. Valencia: ICE Universidad Politécnica de Valencia, 2005.
- GARCÍA, Benilde et al. Modelo de evaluación por competencias docentes para la educación media y superior. **Revista Iberoamericana de Evaluación Educación**, Madrid, v. 1, n. 3, p. 96-108, 2008.

HALL, Kathy; BURKE, Winnifred. **Making formative assessment work: effective practice in the primary classroom**. Maidenhead: Open University Press, 2003.

IBÁÑEZ, Carlos. **Metodología para la planeación de la educación superior: una aproximación desde la psicología interconductual**. México, DF: Mora-Cantúa, 2007.

ION, Georgeta; CANO, Elena. La formación del profesorado para la implementación por competencias de estudiantes universitarios. **Educación XXI**, Madrid, v. 15, n. 2, p. 249-270, 2012.

ION, Georgeta; SILVA, Patricia; CANO, Elena. El feedback y el feedforward en la evaluación de las competencias de estudiantes universitarios. **Profesorado**, Granada, v. 17, n. 2, p. 283-301, 2013.

JAIMES, Gladys; CALLEJAS, Mauro. **La autonomía, los procesos de pensamiento y las TIC: competencias del siglo XXI**. Temática contemporánea de aplicación en escuelas, colegios y universidades. Bogotá: Limusa Noriega, 2009.

JOVER, Gonzalo; GARCÍA, Alicia. Relectura de la educación por competencias desde el pragmatismo de John Dewey. **Education in the Knowledge Society**, Salamanca, v. 16, n. 1, p. 32-43, 2015.

KAFTAN, Juliann; BUCK, Gayle; HAACK, Alys. Using formative assessments to individualize instruction and promote learning. **Middle School Journal**, Westerville, v. 37, n. 4, p. 44-49, 2006.

KNUST, Ronald; GÓMEZ, Sonia. La Evaluación con enfoque por competencias: ¿se implementa realmente la evaluación por competencias? **Revista Electrónica de Desarrollo de Competencias**, Talca, v. 3, n. 1, p. 104-125, 2009.

LARSEN, Katie; GAERTNER, Matthew. **Measuring mastery: best practices for assessment in competency-based education**. Center on higher education reform. Pearson: Center for College & Career Success-AEI, 2015.

LAHN, Leif. Professional learning as epistemic trajectories. In: LUDVIGSEN, Sten et al. **Learning Across Sites: new tools, infrastructures and practices**, New York: Earli, 2011. p. 53-68.

LASNIER, Francois. **Réussir la formation par compétences**. Montréal: Guérin, 2000.

LE BOTERF, Guy. **Construire les compétences individuelles et collectives**. París: Eyrolles, 2010.

LE BOTERF, Guy. La gestión de competencias alcanzadas por la edad. **Revista de la Asociación Española de Dirección de Personal**, Madrid, n. 33, p. 40-60, 2005.

OCDE. Organización para la Cooperación y Desarrollo Económicos. La definición y selección de competencias claves: resumen ejecutivo. París: OCDE, 2002.

PERRENOUD, Philippe. **Diez nuevas competencias para enseñar**. Barcelona: Graó, 2004.

RÍOS, Daniel. Sentido, criterios y utilidades de la evaluación del aprendizaje basado en problemas. **Educación Médica Superior**, La Habana, v. 21, n. 3, p. 1-9, 2007.

RUÉ, Joan. **Enseñar en la Universidad**. El EEES como reto para la educación superior. Madrid: Narcea, 2007.

SCRIVEN, Michael. The logic of evaluation. In: HANSEN, Hans et al. **Dissensus and the search for common ground**. Windsor: OSSA, 2007. p. 1-16.

TARDIF, Jacques. Desarrollo de un programa por competencias: de la intención a la implementación. **Profesorado**, Granada, v. 12, n. 3, p. 1-16, 2008.

TEJADA, José. La alternancia de contextos para la adquisición de competencias profesionales en escenarios complementarios de educación superior: marco y estrategia. **Educación XXI**, Madrid, v. 15, n. 2, p. 17-40, 2012.

TEJADA, José. La evaluación de competencias en contextos no formales: dispositivos e instrumentos de evaluación. **Revista de Educación**, Madrid, n. 354, p. 731-745, 2011.

TEJADA, José; RUÍZ, Carmen. Evaluación de competencias profesionales en educación superior: retos e implicaciones. **Educacion XXI**, Madrid, v. 19, n. 1, p. 17-38, 2016.

TOBÓN, Sergio. **Formación basada en competencias**: pensamiento complejo, diseño curricular y didáctica. Bogotá: ECOE, 2004.

UNESCO. **Educación para todos**: el imperativo de la calidad. París: Unesco, 2005.

VILLARDÓN, Lourdes. Evaluación del aprendizaje para promover el desarrollo de competencias. **Educatio Siglo XXI**, Murcia, n. 24, p. 57-76, 2006.

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