Coll, C. (2018). Personalizing school learning, a requirement of the new learning ecology

The idea of personalizing learning currently holds a privileged position in pedagogical discourse and thinking as well as the proposals and experiences of educational innovation and improvement. The speed with which this idea has spread as well as the high level of acceptance and popularity that it has received among education professionals suggest that it is important to determine its foundations and scope, assess whether it is desirable, possible or necessary to implement in our education system and, if so, identify the most effective and efficient strategies for overcoming the obstacles and difficulties involved and avoiding the risks arising from possible simplistic or biased interpretations. The aim of this dossier is to make a first approach to these issues with contributions from a broad range of education professionals working in different educational levels – pre-primary, primary, secondary, university – and institutional contexts – schools, high schools, universities, educational administration, local administration.

What do we mean by personalizing learning?

It is necessary to start by specifying the idea of personalizing learning that has governed and guided the decisions made about the dossier's structure and contents. Indeed, as a result of its widespread diffusion and growing popularity, there are currently many significantly different meanings of what it means to personalize learning. Sometimes this expression is used as a synonym of attention to diversity and adaptive teaching; sometimes, it is used to refer to alternative and totally new ways of organizing school education; and other times it refers to using "authentic" learning situations that have a clear correlation with the habitual activities and situations of the students' daily lives. For our part, we understand that the concept of personalization refers to a vision of learning and teaching that is located in the tradition of pedagogies centred on the child or student. This tradition has been present in educational discourse, thought and practices since the late nineteenth century, and includes such illustrious names as Maria Montessori, Eduard Claparède, Celestin Freinet, Ovide Decroly and John Dewey, to mention just a few. Personalizing learning, as we understand it in this dossier, implies both a continuity and a qualitative leap within this tradition.

There is continuity in the sense that, as in the other proposals and approaches of this tradition, personalizing learning involves focusing the educational action on the learner, who is the true protagonist of the learning process. Teaching, and by extension the totality of the educational action, is understood as an aid that is modified and adjusted according to the student's development during the learning process, and especially according to their characteristics and needs. However, personalizing learning also implies a break, a qualitative leap with respect to this tradition, so that when the teacher adjusts the assistance they give to the student during the learning process they not only take into account the student's personal, social and cultural characteristics and the needs associated with them, but also the student's interests, objectives and learning options.

We can understand the nature and implications of this qualitative leap better by outlining the attention to diversity proposals and practices within constructivist approaches, the most recent and extended manifestation of this pedagogical tradition. Usually in these practices

the teacher identifies the student's characteristics and needs, decides what type and intensity of help they need to carry out certain learning that has been previously established in the curriculum and expressed in a textbook or programming, and provides them with help. Certainly in these practices the student is at the centre of the process, but the control over the process is exercised from outside (by the teacher, the curriculum, the textbook, the programming). In the proposals for personalizing learning, the learner's ability to make decisions about their own learning process is recognized and accepted, including aspects related to what (content), how (activities, materials and supports) and when (sequencing) they learn. The teacher offers and adjusts the type and intensity of help they provide taking into account this ability. Therefore, taking into account the student's "voice", considering that voice in the planning and development of teaching and learning activities, and recognizing and accepting the student's ability to control their own learning process become of crucial importance in the proposals and experiences of personalizing school learning (Coll, 2016). The student remains at the centre of the learning process similarly to the proposals and practices of attention to diversity; however, unlike attention to diversity practices, the learner is no longer just someone with needs that have been detected from the outside and that must be met so that the learning process can flow and culminate successfully, the learner also has interests, objectives and personal options that must be addressed equally so that the learning process comes to fruition.

Based on the above considerations it follows that personalizing school learning is not an end but rather a means. The aim is to promote and facilitate personalized learning in schools and high schools, that is, learning that has meaning and personal value for the students. Personalizing learning refers, then, to a set of actions aimed at promoting learning with meaning and personal value for students. In education centres and classrooms these actions usually take the form of pedagogical, didactic, curricular, organizational or operational proposals or strategies. In another article of this dossier we present and discuss in some detail the characteristics of the learning processes that are favourable for generating learning with meaning and personal value for students, as well as the proposals and educational strategies that can be used to promote and favour learning processes with these characteristics in schools. However, and to close these considerations on the meaning and scope of the idea of personalized learning, it is still necessary to specify what we understand by school learning that has meaning and personal value for students.

Learning with personal meaning and value helps the learner: (i) to know and understand themselves better, illuminating moments and aspects of their past experience and personal history; (ii) to know and better understand the reality in which they are immersed and to extend their abilities and their possibilities of acting in and on this reality; and/or (iii) to project themselves towards the future, contributing to generating expectations and action plans that involve them personally. In short, learning with meaning and value for the learner is what contributes more or less significantly to the construction of the learner's identity, which leads them to act, think, feel, relate, interact, anticipate, foresee and project themselves in a certain way. In a way, all the learning we do contributes to making us the way we are, but not all learning contributes with the same intensity or has the same impact. Moreover, not all learning is equally relevant to us at a given time. The meaning of learning does not derive exclusively from the nature and characteristics of what has been learned, nor from the learner's needs and characteristics and nor from the possibilities offered and

the restrictions imposed by the context in which the learning takes place. The meaning of learning is the result of a subjective experience in which the nature and characteristics of what has been learned, the learner's characteristics and needs and the characteristics and conditions of the context become inseparably intertwined. We could say, therefore, that the greater or lesser meaning that the student attributes to school learning is closely related to the possibility of linking their learning experiences in school with the learning experiences they have had in the past, that they have in the present and that they hope to have in the future.

Why is it important to progress towards personalized school learning?

In recent decades due greatly, but not only, to the ubiquity of ICT, the Internet and mobile devices, a set of important changes has taken place in the parameters of human learning; that is, in what, when, how, where, with whom and why people learn. These changes are configuring what has been called a "new ecology of human learning" (Barron, 2006; Coll, 2013) characterized by (i) the multiplicity of activity contexts that offer people opportunities and resources for learning (cultural centres, learning centres, virtual worlds and learning environments, social networks, face-to-face or virtual practices, interest or learning communities, etc.) and that have now joined the formal and school education institutions traditionally considered as the learning context par excellence; (ii) the possibility of disassociating learning from a specific physical or institutional environment (school or family home, for example) by using mobile digital devices that allow us to move between contexts and take learning resources and opportunities with us; and (iii) the digitization of information and the possibility it offers of using different languages and formats simultaneously or successively in the same symbolic space in order to communicate, represent or simulate facts, phenomena or situations.

These and other characteristics of the new learning ecology have led to individual learning trajectories becoming a privileged way for accessing information and knowledge in modern societies (Arnseth and Silseth, 2013; Erstadt *et al.*, 2017). Learning that is considered useful and relevant ceases to be associated exclusively or primarily with the school context, and attention is given to learning that takes place in the different contexts through which people move and the connections established between them. What we are interested in highlighting here is that these trajectories, understood as the set of learning experiences that occur in the activities in which we participate, are partly determined by the contexts that we can access and the activities in which we can participate in these contexts, and also partly by the personal choices and options that we make according to the possibilities of access and participation within our reach. In other words, these trajectories already have a personal nature in that they are the result of connecting learning and learning experiences beyond the spatio-temporal and institutional contexts of activity that originate them.

There is an obstacle, however, to connecting learning and learning experiences that originate in the school context and those that originate in other contexts. Formal education institutions, and of course schools and high schools, are organized and operate according to a vision of learning – that is, a vision of what, where, when, how, with whom and why people learn – far from that proposed in the new learning ecology. The gap between what students usually do and learn in these educational institutions and what they do and learn

outside of them is at the centre of one of the biggest problems that our educational system is currently facing: a growing sector of students, especially from the second cycle of primary education and in secondary education, have difficulty in giving meaning and personal value to school learning.

The proposals and experiences of personalizing school learning are specifically intended to address this phenomenon of the meaninglessness of school education that is affecting increasingly large sectors of students. It should be emphasized that we are not just referring to students who obtain poor learning results or who drop out, but also to students who, obtaining learning results that are considered good or even very good, are often not able to relate this learning to their interests and concerns, what attracts them, and what they do and learn when they are away from school or high school. This includes the students who, according to the usual indicators of school performance, gain the competences and learn the contents established in the official curriculum, but who nevertheless give little meaning and personal value to this learning.

According to the argument presented, in the framework of the new learning ecology of modern societies, personalizing school learning is not just an option, it is a requirement. It is important to move towards personalized school learning because it is essential to the new learning ecology. And also because, as the results of educational and psycho-educational research have shown (see the following article), personalizing learning, understood as a set of pedagogical and didactic strategies aimed at promoting and reinforcing the meaning of school learning, is an appropriate way of facing the worrying and growing phenomenon of the meaning of school learning becoming increasingly obscured.

From this perspective, therefore, what is under discussion is not whether we should or should not move forward towards a greater personalization of school learning, but rather how to do it. The question is, then, how should we face the difficulties, overcome obstacles and avoid the risks involved in moving from an educational system that corresponds to a largely obsolete learning ecology based on homogenizing learning, towards a system that is firmly committed to personalizing learning. The present monograph and the authors' contributions that comprise it aim to provide some sort of response to this question. Before presenting the dossier's structure and contents, however, we should briefly comment on the actors and instances involved in the actions that need to be undertaken to move in this direction.

Actors and action areas involved in progressing towards personalized school learning

To move towards personalized school learning it is necessary to implement actions at the different organization and functional levels of the education system and involve different actors, including teachers, management teams, community agents, education administrators, educational policy designers and policy makers. The reason for this is that, as mentioned, setting up personalized school education necessarily involves revising and transforming the educational system in depth, which would involve all the aforementioned groups.

First, this transformation involves teachers and teaching teams, who are ultimately responsible for designing the pedagogical and didactic strategies for promoting meaningful school learning with personal value for students, for planning the implementation of these strategies in classrooms, implementing them, monitoring them, evaluating them and improving them. Second, it involves management teams, who are responsible for promoting and facilitating the adoption of forms of organization and functioning in educational centres – organization of spaces and times, organization criteria for student groups – for facilitating the implementation of strategies for personalizing learning in the classroom. Third, the transformation involves administrators, managers, designers and educational policy makers, who are responsible for defining, applying and supervising the application of a legal and regulatory framework that definitively renounces the homogenizing philosophy of the learning ecology that currently sustains school education and which is totally incompatible with the new learning ecology and with an educational system geared towards personalized learning. Finally, it involves the relevant community agents in the contexts through which the students move and participate, whose contribution is essential for establishing an education that is distributed and interconnected among different contexts to fulfil complementary educational objectives.

The systemic nature of the change necessary for establishing an educational system in accordance with the new learning ecology and governed by the idea of personalized school learning highlights the difficulties involved in the inevitable process of transformation and the obstacles that will have to be overcome to achieve it. This complexity suggests that it is necessary to implement actions and innovation processes of varying scope and amplitude, depending on the objective conditions in which they are carried out, that gradually bring us closer to fulfilling our objective: a school education fully oriented towards personalized learning. It is necessary, therefore, to ensure the maximum possible coherence of the actions and innovation processes, regardless of the area they are located in (classroom, educational centre, school zone, educational system) or the main actors involved (teachers and teaching teams, management teams, managers and education administrators, educational policy designers, community agents).

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