Teachers learn about student learning assessment through a teacher education process

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ABSTRACT

This study aims to understand the extent to which university professors adopt new pedagogical voices in their learning assessment practices through a teacher education process. Participants (N = 32) were interviewed before and after the teacher education process, and data were analysed using qualitative and quantitative methods. The results of the study demonstrated, first, that teachers renamed their educational discourse about learning assessment significantly, increasing it in assessment for learning practices, particularly in the themes of timing and agents, and reducing it in all themes referred to the assessment of learning practices. And second, three clusters of faculty were identified, which differed in terms of the way they merge both learning assessment practices: professors with a slight prevalence of the assessment for learning conceptual voice, professors with a slight prevalence of the assessment for learning practical voice, and professors with a strong prevalence of the assessment for learning voice.

1. Introduction

For the past two decades, many relevant educational theoretical frameworks have been used to deepen our understanding of how teachers learn and change their educational practice. For example, the cognitive theory studied how a teacher acquires professional knowledge (Putnam & Borko, 2000); the situated learning theory analysed how a teacher could gain access to the complex, critical thinking used by expert teachers in their classrooms (Leaman & Flanagan, 2013); certain views on teacher education tried to integrate both models (Korthagen, 2010); the socio-constructivist approach explained how teachers can learn in communities of practice (Cochran-Smith & Lytle, 1999), and the Vygotskian approach examined how teachers can learn within their zone of proximal development (Warford, 2011).

The recent emergence of new perspectives on teacher learning based on the development of the teacher identity and the dialogical self-perspective pose new unanswered questions about how teachers learn, and which are the main mechanisms used for learning (Akkerman & Meijer, 2011).

Whereas learning assessment of students is widely considered central to student learning (Mulliner & Tucker, 2017), little is known about how teachers learn about it according to the dialogical learning view. In this work, student learning assessment will be considered as the set of teachers' actions intended to promote formative assessment for learning, as tasks conducive to appropriate student learning approaches, and also to promote summative assessment for certification (Carless, 2015).

This study was designed focusing on understanding and explaining the extent to which teachers learn certain pedagogical content about formative and summative assessment, focusing on the dialogical learning mechanism of the teacher's appropriation of educational discourse.

2. Teacher learning: a process of appropriation of discourse about teaching practice

In Freeman's (1993) earlier work, teacher learning was conceived as a dialectical process, which includes two specific mechanisms through which teachers develop a new understanding of their practice: renaming experience and reconstructing practice. While reconstructing practice refers to the process of developing new teaching actions in the classroom, renaming experience consists in teachers critically reflecting, renegotiating, and assigning new meanings to their teaching practice.

Appropriation of discourse will be defined as a particular process of renaming experience about teaching practice. The meaning of "appropriation" as used here derives from the contributions of Bakhtin (1991), and it refers to how agents are involved in processes of mastering skills

through the adoption of cultural tools and mediational means that belong to others and make them their own (Wertsch, 1998). From this view, teacher's appropriation will be conceived as a dialogic learning process where teachers appropriate the meanings from others *adopting them as their own* pieces of discourse, and progressively interlinking them with their own teacher voice (Wertsch, 1991). According to Matusov and von Duyke, (2009), pieces of discourse that contain words, ideas, approaches, knowledge, or feelings could be appropriated by individuals.

Gee (1990) defines *discourse* as "a sort of 'identity kit' which comes complete with [ways] to act, talk, and often write, so as to take on a particular social role that others will recognize" (p. 142). Academic discourse is a type of discourse that is very relevant to teacher learning, which can be commonly used in teacher education processes. The need for teachers to 'appropriate' academic discourse is a basic educational principle in both pre-service and in-service training. According to Badia and Becerril (2016), "academic discourse is research-based and propositional knowledge produced primarily by university-based researchers and scholars in various disciplines, and includes educational, didactical, and psychological theories, conceptual frameworks, and strategies for teaching" (p. 225).

The process of teachers' appropriation of different meanings embodied in academic discourse has been described by several research works on the topic of teacher education processes. For example, Hadwin, Wozney, and Pontin (2005) demonstrated how the appropriation of teachers' discourse about their self-regulatory activity can be scaffolded. In this case, they analysed the process of discourse appropriation by a group of professors regarding the use of a portfolio in a learning assignment where they were asked to provide evidence of the competences they had acquired on research methods. In the same vein, Badia and Becerril (2016) showed how teachers appropriated academic discourse into professional discourse by means of three types of professional discourse articulation, that consists of using categories belonging to a theoretical classification to analyse teaching practice, applying a theoretical concept or idea to understand teaching practice, and using theoretical terms to describe teaching practice. Finally, Davin, Herazo, and Sagre (2017) examined the process by which the professors implemented dynamic assessment in their classrooms, and at the same time expanded their professional discourse about dynamic assessment with varying degrees of appropriation.

As a result of the appropriation of academic discourse process, the professors are able to change their voice about one or more education topics. Teachers can appropriate certain meanings and adapt and use them for their own purposes through their personal voices and, in that way, these meanings become part of the teachers' thinking and reasoning, thus guiding their new teaching practice (Akkerman & Meijer, 2011). According to Bakhtin (1981), a *voice* involves the individual's speaking personality, the subjective speaking consciousness of a human being. Because there are multiple ways of representing reality and thinking about solutions to approach a problem, there may be several different forms of speaking and thinking (voices) that may be invoked on particular occasions (Wertsch, 1991). In the field of teachers and teaching, a teacher's voice is made up of many interrelated meanings (e.g., conceptions, beliefs, and emotions) and represents a certain way of thinking and acting in connection with a particular aspect of teaching and learning (Akkerman & Meijer, 2011).

3. Teaching practices about learning assessment in higher education

In the educational literature developed for analytical purposes, a clear distinction has been made between two types of assessment practices in higher education: assessment *of* learning and assessment *for* learning (Hernández, 2012). From the teacher's perspective, each category of learning assessment is clearly characterised by its own values and meanings (Leach & Scott, 2003).

Assessment of learning in higher education has also been called summative assessment (Knight, 2002). Assessment of learning consists of testing or accumulating evidence regarding each student's learning outcomes over time, at the end-phase of the level or at transition times. Summative assessment is an important process in higher education for the purpose of accountability and certification (Maclellan, 2004).

Assessment for learning (Kearney, 2013; Sambell et al., 2012) has also been defined as formative assessment (Nicol & Macfarlane, 2006). Several key characteristics are that assessment for learning is a part of the teaching and learning process; that it is central to classroom practice and is sensitive to the learning process; that it includes constructive teaching guidance, and that it promotes students' motivation and engagement. Feedback has been widely considered central in the assessment for learning practice in higher education (Mulliner & Tucker, 2017).

Despite these differences, both types of learning assessment—formative and summative—are needed in the educational practice because learning assessment is considered a key component of the teaching and learning cycle (Kearney, 2013). Consequently, new integrative assessment frameworks have emerged; these combine both assessment practices into a single perspective. Learning-oriented assessment processes are an example of these new assessment perspectives, which include three interrelated processes: assessment tasks are considered learning tasks, the professor is involved in the development of the students' evaluative skills, and feedback is used as feedforward (Carless, 2015).

Even though this integrated learning assessment perspective is being progressively accepted in the academic educational field (Lau, 2016), its transference to educational practice has been slow and difficult, especially in higher education (Carless et al., 2011). One of the main factors that hinders transference of this integrated learning assessment perspective to the educational practice is the academics' beliefs regarding the integrated perspective of learning assessment. While the summative assessment approach is well understood among academics, several key aspects of formative assessment, such as the teachers' perception regarding the usefulness of feedback, are still under discussion (Bailey & Garner, 2010; Mulliner & Tucker, 2017).

According to the theoretical framework adopted here, the concept of learning assessment of students can be conceived as a type of educational discourse (Bakhtin, 1986), which includes, as reference content, the concepts, ideas, and points of view related to all learning-oriented assessment practices (Carless, 2015). The outcome of the teacher's appropriation of discourse about learning assessment will be a new teacher's subjective voice about this educational topic, i.e., a new teacher's subjective speaking personality that brings forward a particular perspective about an educational topic (Akkerman & Meijer, 2011), in this case about learning assessment.

The new perspective about the field of teacher learning from a dialogical viewpoint could be useful to recognise to what extent teachers could adopt a new educational discourse from the formative assessment approach in teacher education processes on this topic (Akkerman & Meijer, 2011; Freeman, 1993). In order to explore more in-depth the currently available knowledge about this educational field, we identify two research questions:

Research Question 1: To what extent do teachers appropriate the discourse about student learning assessment?

Research Question 2: Are there differences among the teachers' voices about student learning assessment?

4. Method

4.1. The teacher education process

The main goal of the teacher education process was to generate new teachers' voices about assessment for learning. An additional objective was to develop skills related to the design of new educational practices, which include assessment for learning. For this purpose, the process