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The collective dimension of reflective practice: the how and why

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In order to help future teachers develop reflective practice, many initial training programs provide support devices, both individual and collective. In the second case, the collective dimension of reflective practice raises some theoretical issues, given that reflective practice is primarily conceptualized as an individual process. This article attempts to conceptualize the relationship between reflective practice and verbal interaction in a collective approach to reflective practice. To do so, we transpose Vygotsky's concept of semiotic mediation to the concept of reflective practice. From there we develop a model of interactional reflective practice. We then discuss potential conceptual and methodological extensions, conceptual limitations, and future research directions.

Keywords: reflective practice; teacher education; social and verbal interaction

Introduction

Reflective practice has become a mandatory professional competency in many initial teacher training programs (Mansveldt-Longayroux, Beijard, & Verloop, 2007; Richardson, 1990). Therefore, it must be developed in pre-service teachers, with the appropriate support devices. Whereas some of these devices are individual in nature (portfolio, logbook), others are collective (discussion seminar, reflective interview or dialogue, Internet communication tools) and require the involvement of peers or educators. However, this collective dimension of reflective practice raises some theoretical issues. Reflective practice has been primarily conceptualized as an individual process (Zeichner & Liston, 1996), which raises the question of the place and role of its collective dimension. In fact, although the collective dimension of reflective practice is widely accepted, it has been under-conceptualized. In this article, we approach the collective dimension of reflective practice through verbal interaction, an inherent and observable feature of all collective support devices for reflective practice in pre-service teachers. The objective is to conceptualize the relationship between reflective practice and verbal interaction in a collective approach to reflective practice. We begin with a brief explanation of the role of reflective practice in initial teacher training programs. Because the concept of reflective practice is based on a number of disparate theoretical tenets, we propose a definition for purposes of this article. We then review the literature on the relationship between reflective practice and verbal interaction. We conclude that this relationship has been positively

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perceived and empirically studied, but under-conceptualized. We then attempt to conceptualize the collective dimension of reflective practice through verbal interaction, drawing on Vygotsky's (1962) concept of semiotic mediation, and from there we develop a model of interactional reflective practice. We follow up with some potential conceptual and methodological extensions and conclude with certain limitations to our conceptualization, as well as avenues for future research.

Reflective practice: from individual to collective

This article addresses the collective dimension of reflective practice in initial teacher training programs. We begin with a brief explanation of the role of reflective practice in initial teacher training.

Portrait of reflective practice in initial teacher training programs

Reflective practice has become a mandatory professional competency in many initial teacher training programs around the world (Mansvelter-Longayroux, Beijaard, & Verloop, 2007; Richardson, 1990). In the United States, the National Council for Accreditation of Teacher Education (2008) stipulates that graduates of initial teacher training programs must be able to reflect on their practice. In Canada, each province develops its own initial teacher training program, and most of them have incorporated a reflective competency into their framework of teaching competencies (see Ontario College of Teachers, 2010; British Columbia College of Teachers, 2008; Government of Alberta, 1997; and Quebec's Ministry of eEducation of Quebec [MELS], 2001). Europe is heading in the same direction. For instance, the *Institut national de recherche pédagogique* named reflective practice a European trend in initial teacher training in 2005.

Although reflective practice has been accepted internationally as one of the professional competencies for teachers, it remains a fuzzy concept (Beauchamp, 2006; Ecclestone, 1996; Grimmer, Erickson, MacKinnon, & Riecken, 1990) because authors and educators have interpreted it variously, as Fendler (2003) deplors:

Today's discourse of reflection incorporates an array of meanings: a demonstration of self consciousness, a scientific approach to planning for the future, a tacit and intuitive understanding of practice, a discipline to become more professional, a way to tap into one's authentic inner voice, a means to become a more effective teacher, and a strategy to redress injustices in society. [...] It is no wonder then that current research and practices relating to reflection tend to embody mixed messages and confusing agendas. (Fendler, 2003, p. 20)

Its development as a professional competency in pre-service teachers is also subject to considerable disparities across teacher training programs (Beauchamp, 2006; Desjardins, 2000; Russell, 2005). In order to address reflective practice, therefore, we must first define the concept, as we do below.

Reflective practice as defined in this article

We defined reflective practice as a process based on two constitutive properties: grounded and generic. In terms of its grounded property, reflective practice is closely associated with action, as defined by Schön (1983). This relationship is viewed

as reciprocal, in that action leads to reflection, after which the action is adjusted accordingly, and so on in a back-and-forth dynamic. Here, the concept of reflective practice is opposed to an abstract, disembodied concept of reflection, as depicted in Rodin's isolated *Thinker*. The generic property of reflective practice, on the other hand, is manifest in its widespread application not only to the professional field but also to the day-to-day life of social individuals. To illustrate, the Organisation for Economic Co-operation and Development (OECD, 2005) does not consider reflective practice a key competency but rather 'the heart of key competencies' (p. 8) that individuals in Western societies are required to have. This generic property of reflective practice invites us to reconsider its place in initial teacher training programs. Therefore, rather than one of the teaching competencies, we posit that reflective practice is instead a meta-competency that is used to develop and sustain the other teaching competencies. In this view, it appears to be much more transversal than most initial teacher training programs would have us believe. But what about its collective dimension?

The collective dimension of reflective practice through verbal interaction

By definition, the collective dimension of reflective practice applies as soon as the practice is no longer individual, in other words, when it includes the presence of an 'other'. In initial teacher training programs, we may distinguish between devices for reflective practice, which individuals can use (that is, the 'other' is not required to use the tool), such as the portfolio and the logbook, and devices for which the presence of the other is a condition for their use, such as the discussion seminar, the reflective interview or dialogue, and Internet communication tools. As an inherent feature of collective support devices for reflective practice, verbal interaction therefore provides a useful, concrete, and observable situation in which to examine the collective dimension of reflective practice. Accordingly, we address the collective dimension of reflective practice by focusing on its relationship to verbal interaction.

A relationship that has been positively perceived and empirically studied

A number of authors (Jay & Johnson, 2002; Osterman & Kottkamp, 2004; Richert, 1992) consider that verbal interaction supports the development of reflective practice, particularly because it encourages pre-service teachers to verbalize their reflections on their practice and to confront and reconsider their attitudes. Some authors refer to this as *reflective conversation* (Crow & Smith, 2005; Goodfellow, 2000).

The relationship between reflective practice and verbal interaction has also given rise to numerous empirical studies addressing both face-to-face interaction (e.g., Pugach & Johnson, 1990) and, more recently, online interaction (e.g., Hawkes & Romiszowski, 2001; Joiner & Jones, 2003; Paulus & Phipps, 2008). The overall results are positive, although trends remain tentative (Barnett, 2002; Zhao & Rop, 2001). If we are to conceptualize the collective dimension of reflective practice through verbal interaction, we must begin by asking how this relationship has been conceptually analyzed in the past.

An under-conceptualized relationship

From a conceptual viewpoint, we may start by pointing out the lack of attention paid to the collective dimension of reflective practice in the theoretical literature. It appears

that theoretical models adopt a predominantly individual perspective on reflective practice, largely neglecting the collective dimension. Several authors (Korthagen, 2001; Ottesen, 2007) stress that reflective practice is generally addressed in individual terms, which Engeström (1994) blames on an individualist and Cartesian bias. Zeichner and Liston (1996) attribute this conceptual limitation to Schön's (1983) theory, in which 'apart from the context of mentoring, reflection is portrayed [...] as largely a solitary process involving a teacher and his or her situation, and not as a social process taking place within a learning community' (Zeichner & Liston, 1996, p. 18).

All this indicates that the collective dimension of reflective practice remains largely to be conceptualized, as pointed out by Marshall (2008), citing the arguments by Reynolds and Vince (2004):

There is a tendency in Schön's writing to focus on the individual practitioner without offering a fully social conception of reflective practice. This accusation is perhaps not entirely fair given the central role accorded to dialogue in Schön's work, but nevertheless there is room for a more elaborate understanding of the social nature of reflection. (Marshall, 2008, p. 2)

Consequently, the positive perception of the relationship between reflective practice and verbal interaction (see the section *A relationship that has been positively perceived and empirically studied* above) appears to be based more on intuitive arguments than on well-considered precepts. The collective dimension of reflective practice therefore remains to be properly conceptualized.

Research objective

In the foregoing, we proposed that the relationship between reflective practice and verbal interaction, albeit positively perceived and empirically studied in the literature, has not yet been adequately conceptualized. The objective of this article is therefore to conceptualize the relationship between reflective practice and verbal interaction in a collective approach to reflective practice. However, given that the concept of reflective practice does not include a collective dimension, we will draw on a 'third-party' theory to model the relationship between reflective practice and verbal interaction. First, we present the methodology we used to achieve this.

Methodology

We conducted a literature review based on the methods proposed by Gall, Borg, and Gall (1996). After determining the relevant key words (interaction; dialogue; conversation + reflective practice; reflectivity or reflexivity or reflectiveness [used by OECD, for example]; reflection or thinking), we combined them to search general academic online databases (e.g., Google Scholar) and specialized databases (e.g., ERIC; Francis; journal *Reflective practice*). Although we retrieved some empirical documents, we focused on their conceptual content. As the search proceeded, we made an initial selection of documents based on the abstracts to ensure relevance to the search criteria. From this body of documents, we selected secondary sources (e.g., Barnett, 2002; Straten, Korthagen, & Veen, 1996; Zhao & Rop, 2001) to broaden our overview of the topic, following Gall et al. (1996). We then selected first-source documents with respect to our research objective and the impact of the documents, or the number of citations for each, as measured on Google Scholar. After performing this procedure repeatedly, we selected a total of 52 documents.

The initial findings of the literature review are presented in the section *The collective dimension of reflective practice through verbal interaction* above. Recall that the relationship between reflective practice and verbal interaction was positively perceived, and had generated a number of empirical studies, with trends that are as yet tentative. On the other hand, this relationship has been barely conceptualized, leaving the impression that reflective practice is essentially an individual, not a collective, process. This finding provided the motivation for our study. Aside from identifying some trends, the literature review enabled us to outline the main theories (other than on reflective practice) that are generally mentioned in connection with reflective practice and verbal interaction. We were therefore able to identify potential avenues for conceptualizing this relationship, which we describe next.

Conceptualization of the relationship between reflective practice and verbal interaction

We begin by presenting the two most frequently mentioned approaches to conceptualizing the relationship between reflective practice and verbal interaction that we found in the literature we consulted. Having opted for the second of these (Vygotsky's [1962] theory of semiotic mediation), we briefly describe it, apply it to reflective practice and verbal interaction, and demonstrate how it operates.

Reflective practice and interaction: potential avenues

Although many theories have been put forward to explain the relationship between reflective practice and verbal interaction (e.g., symbolic interactionism and activity theory), we present here the two most recurrent theories in the consulted literature. The first stems from the idea of situated cognition, as defined by Lave and Wenger (1991), where the concept of community, and particularly Wenger's (1999) community of practice, is regularly cited in connection with reflective practice and interaction (Allard et al., 2007; Buysse, Sparkman, & Wesley, 2003; Chanier & Cartier, 2006; Daele & Charlier, 2006; Passman, 2002; Zhao & Rop, 2001). Nevertheless, the community of practice does not fully respond to our research objective, as it has more to do with social interaction, or interaction that encompasses not only verbal but also other, non-verbal forms of interaction, as Cobb and Bowers (1999) put it:

This core construct of participation is not restricted to face-to-face interactions with others. Instead, all individual actions are viewed as elements or aspects of an encompassing system of social practices, and individuals are viewed as participating in social practices even when they act in physical isolation from others. (p. 2)

Verbal interaction therefore appears to play an instrumental role insofar as it is conceptualized as one manifestation among many of social participation, and not as a 'place' of reflection *per se*. It therefore appears that the practice community cannot serve as a basis for conceptualizing the particular relationship between reflective practice and verbal interaction.

The second avenue promises to be more suitable, as it precisely characterizes verbal interaction as a 'place' of reflection. It borrows from Vygotsky's (1962) socio-cognitive approach to semiotic mediation. Several other authors (Guiller,

Durndell, & Ross, 2008; Korthagen, 2001; Levin, He, & Robbins, 2006; Makinster, Barab, Harwood, & Andersen, 2006; Pugach & Johnson, 1990; Reingold, Rimor, & Kalay, 2008) have drawn from Vygotsky (1962) to stress the role of verbal interaction with peers and educators in developing reflective practice. We now briefly describe Vygotskian theory and highlight the points of interest for conceptualizing the relationship between reflective practice and verbal interaction.

Overview of Vygotsky's theory

First, we should mention that Vygotsky's (1962) theory is both vast and complex, and space constraints do not allow a complete discussion here. We will simply outline some of the theoretical precepts that are relevant to our research objective.

Semiotic mediation

Semiotic mediation is the centrepiece of Vygotsky's (1962) theory, which is based on the premise that human cognition and language are developed through social and cultural interactions with significant others (Matthey, 1996). This implies that individuals' higher mental functions and the ability to form concepts are profoundly influenced by the social, cultural, and historical situations that mediate them (Wertsch, 1985, p. 141). For Vygotsky (1962), cognition is developed through semiotic mediation, in other words, by means of symbolic mediators such as signs and symbols. Language, being a quintessential system of signs and symbols, acts as a primary semiotic mediation tool for the development of thought (Matthey, 1996; Wertsch, 1985). Consequently, for Vygotsky (1962), the ability to conceptualize is closely related to verbal interaction.

According to his theory, cognitive development in children can be viewed as a progressive, transformative internalization of social interactions, with verbal interaction as the most important mediator. This process plays out on two levels: the interpsychological level, or verbal interactions with people; and the intrapsychological level, or the internalization of these interactions within the child. More precisely, the higher mental functions are initially developed through the child's verbal interactions with the social environment and subsequently internalized, thereby allowing the child to construct them independently. This is what Vygotsky (1981) means when he states that 'all higher mental functions are internalized social relationships' (1981, p. 164). This vision of cognitive development invites us to reconsider the commonly held distinction between the individual and the collective. In fact, if we push Vygotsky's (1962) logic further, all cognition could be viewed as social, operating within individuals as interactions internalized from the external world, and that these interactions are inherent to the cognitive functions. Vygotsky (1981) seems to be saying this when he states that 'in their own private sphere, human beings retain the functions of social interactions' (1981, p. 164). Thus, the higher mental functions and the ability to conceptualize will never be the province of solitary individuals, but rather the outcomes of interactions that take place:

- initially between individuals and their social environment (as the higher mental functions are developed); and
- subsequently within individuals (as the higher mental functions are internalized).

The zone of proximal development

Vygotsky (1962) used the transition from interpsychological to intrapsychological functioning to develop the concept of the zone of proximal development. In the words of Matthey (1996, p. 91), this space is ‘the difference between what a child can do alone, autonomously, and what he or she can do with an adult’s guidance’ (free translation). In other words, the zone of proximal development encompasses the higher mental functions that the child has developed through interactions with the social environment but has not yet internalized, and hence is not yet ready to develop autonomously.

Figure 1 illustrates Vygotsky’s (1962) model of semiotic mediation as presented in this section. It contains three spaces: the interpsychological level; the zone of proximal development; and the intrapsychological level. The child initially develops the higher mental functions through verbal interactions with the social surroundings. Once these are internalized (at the intrapsychological level), the child is ready to develop them autonomously. The zone of proximal development is a transitional space where the higher mental functions are internalized.

Having briefly introduced Vygotsky’s (1962) theory, we will situate verbal interaction (as the main mediator of social interaction) and reflective practice in a collective approach to reflective practice.

Interactional reflective practice

We now transpose Vygotsky’s (1962) theory to initial teacher training. We consider that the verbal interactions among pre-service teachers, as they use collective support devices for reflective practice, provide a ‘place’ to develop reflective practice. Recall that, unlike Vygotsky’s theory, which applies to children’s cognitive development, our model concerns adults. Although it is arguable that semiotic mediation

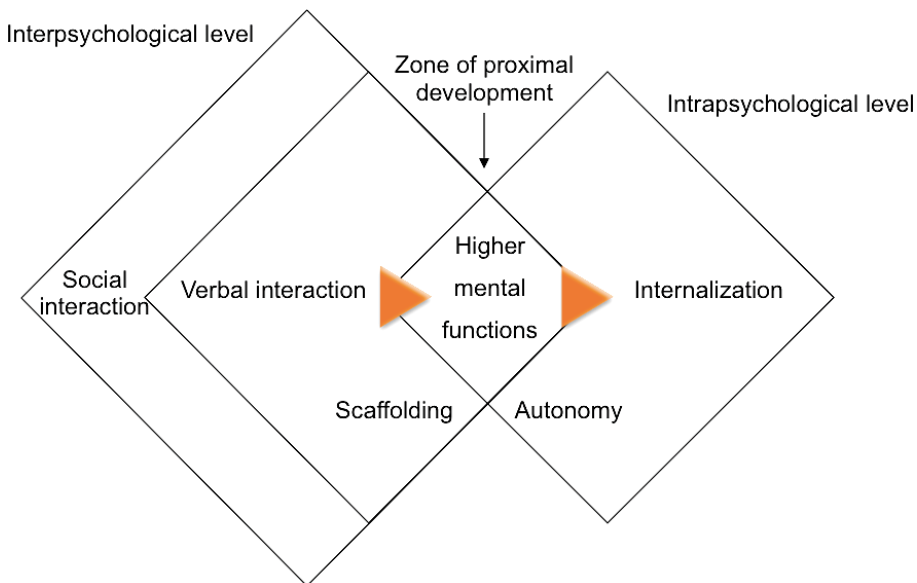


Figure 1. Vygotsky’s (1962) theory of semiotic mediation.

applies equally to adult learning situations (Wells, 1999; Wertsch, 1985), we hold that adults are sufficiently autonomous at the cognitive level to pursue the reflective process individually, in parallel to a reflective process that they develop through verbal interactions with each other. Consequently, whereas verbal interactions among pre-service teachers could support their reflective practice, it is also possible that their individual capacity to conceptualize could contribute to the process. We therefore posit that pre-service teachers, being adults, could benefit from both verbal interactions with their peers and their own cognitive capacity to support the reflective process. The findings of a previous exploratory study (Collin, 2010) corroborate this idea.

Figure 2 illustrates the relationship between reflective practice and verbal interaction in light of Vygotsky's (1962) theory. This model was improved after empirical testing by analyzing the online interactions among 34 teacher interns (Collin, 2010). The model postulates that pre-service teachers can develop their reflective practice through verbal interactions with each other and with their instructors (interpsychological level). This level of interaction therefore requires at least some collaboration between the actors. Otherwise, the reflections could not be shared. At the same time, we propose that the intrapsychological level, which is the equivalent of the 'internalized version' of the interpsychological level (see the section on *Semiotic mediation* above), can also contribute to the reflective process of preservice teachers through the intrapersonal interactions that take place in parallel to interpersonal interactions. Thus stimulated, the reflective practice that was developed in the zone of proximal development is progressively internalized, and ultimately reinvested in autonomy. Lastly, because professional action is essential to reflective practice, according to Schön (1983), we situate it as both the point of departure for and the outcome of the reflective process. Hence, the model applies particularly well to the

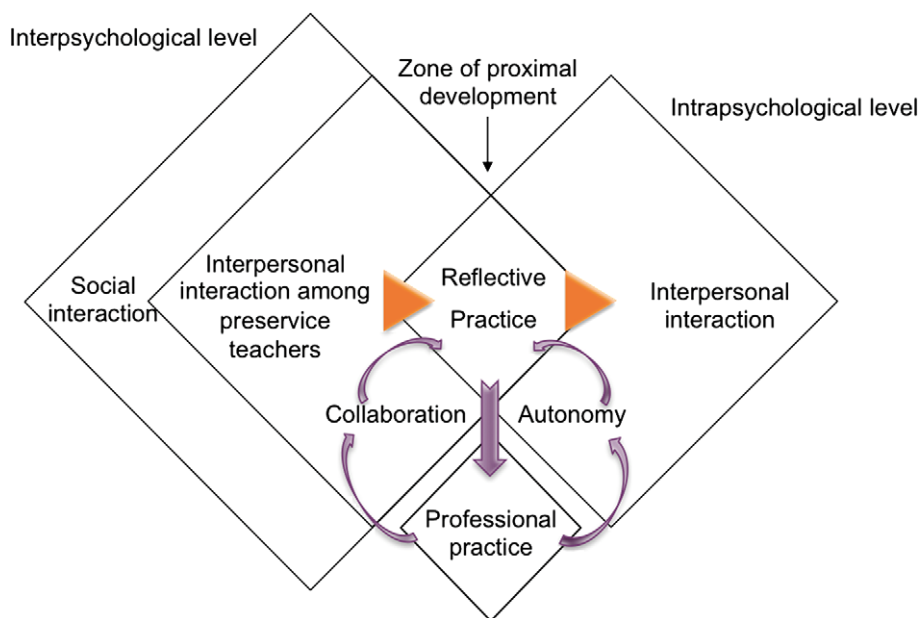


Figure 2. Model of interactional reflective practice.

teaching internship, when pre-service teachers are engaged in actual professional practice.

This model situates verbal interactions among pre-service teachers at the heart of the collective dimension of reflective practice. This picture of reflective practice features two joined and interacting movements, one at the interpersonal level and another at the intrapersonal level. Both interaction levels are fuelled by professional action, and in turn they fuel the reflective process in pre-service teachers. This conceptualization is in line with Vygotsky (1962) who stated that 'There remains a constant interaction between outer and inner operations, one form effortlessly and frequently changing into the other and back again' (1962, p. 47). Other authors, notably to explain the co-construction of knowledge through verbal interaction, have mentioned this complementarity between the inter- and intrapersonal levels. For instance, Gunawardena, Lowe, and Anderson (1997, p. 409) argue that 'Two kinds of knowledge creation take place in any shared learning experience', the 'individual' and the 'social' (p. 409), and Salomon (1993) says much the same about distributed cognition.

Conceptual and methodological extensions of interactional reflective practice

Having presented our conceptualization of the collective dimension of reflective practice, we now offer some extensions. The first is a conceptual hypothesis concerning the relationship between the inter- and intrapersonal levels, and the second concerns a methodological issue in empirical studies of the interactional reflective practice of pre-service teachers.

Conceptual hypothesis concerning interactional reflective practice

The interactional reflective practice model implies two joined and complementary interactional levels in the reflective process. Does this mean that the inter- and intrapersonal levels always play a more-or-less equal role in collective support devices for the reflective practice of pre-service teachers? Hypothetically, the opposite is possible. In fact, we cautiously suggest that the relationship between the inter- and intrapersonal levels varies with the specific interactional modalities of each collective support device. For example, discussion seminars, i.e., face-to-face meetings held at universities, are liable to involve more interpersonal than intrapersonal interaction, insofar as 'others' are sharing the same time and space. In contrast, some collective devices are liable to alter the balance between the inter- and intrapersonal levels. For example, Vanhulle (2005) describes a device whereby pre-service teachers participate in group learning activities that involve reading and writing (e.g., reading circles, appropriation activities for various types of texts), accompanied by reflective writing, which are then discussed with their professors. In terms of interactional reflective practice, the interpersonal (during group activities) alternately predominates over the intrapersonal (reflective writing) in these activities. Similarly, asynchronous online interaction (e.g., e-forum, distribution list), which involves written messages and reactive feedback, are also alternately weighted. Accordingly, although it is arguable that interactional reflective practice encompasses two interactional levels engaged in a back-and-forth reflective process, it is equally possible that the relationship between these two levels varies according to the interactional modalities of the collective support devices.

Methodological extensions of interactional reflective practice

As conceptualized herein, interactional reflective practice situates verbal interaction at the heart of the reflective process in pre-service teachers. Because verbal interaction serves as a mechanism for interactional reflective practice, it is conceivable that it can also act as an indicator of this process. In other words, by analyzing the verbal interactions among pre-service teachers who use collective support devices for reflective practice, we would expect to find 'traces' of interactional reflective practice. Although this type of linguistic methodological approach has been underexplored in the area of reflective practice, it is noteworthy that this method has been formalized in other fields such as foreign language acquisition (e.g., Matthey, 1996) and the acquisition of scientific concepts (e.g., Baker, 1994, 1996; Baker & Lund, 1997; De Vries, Lund, & Baker, 2002). The postulate common to this type of analysis, largely inspired by Vygotsky (1962), is that verbal interaction leaves 'traces' of co-constructed learning that provide information about the ongoing learning process. Interactional reflective practice could therefore be analyzed using existing grids designed to analyze knowledge co-construction (e.g., Felton & Kuhn, 2001; Gunawardena et al., 1997).

Conclusion

The objective of this article was to conceptualize the relationship between reflective practice and verbal interaction in a collective approach to reflective practice. We ended by constructing a model of interactional reflective practice (Figure 2), which depicts reflective practice as a process that is sparked by professional action, and that takes place at two intertwined and interacting levels: interpersonal and intrapersonal. These two interactional levels fuel reflective practice, which is in turn reinvested into professional action. As a conceptual extension of interactional reflective practice, we hypothesized that the relationship between the interpersonal and intrapersonal interactional levels may vary with the interactional modalities of the collective support devices for reflective practice used by pre-service teachers. At the methodological level, we offered some potential avenues to an empirical understanding of interactional reflective practice through the analysis of verbal interactions.

Our interactional reflective practice model has a few limitations. At the theoretical level, transposing Vygotsky's (1962) semiotic mediation theory to the reflective practice of pre-service teachers requires a certain reshaping of the relevant theories. For example, as mentioned above, semiotic mediation originally applied to children's cognitive development, whereas we are concerned with adults. We therefore wonder whether the zone of proximal development, which was initially applied to the higher mental functions, remains valid for the reflective practice of pre-service teachers. At the methodological level, we proposed that interactional reflective practice could be evidenced in verbal interactions among pre-service teachers. This implies *a priori* knowledge of the linguistic manifestations of reflective practice. Thus, although many analysis tools would appear suitable for gaining an understanding of reflective practice through verbal interaction, it is difficult in reality to determine the appropriate linguistic observables. Consequently, although the model of interactional reflective practice appears to make a useful contribution to the collective dimension of reflective practice, it is still in the exploratory, developmental stage, and will benefit from further refinement.

We can suggest a number of avenues for future research. The first would be to examine the modalities of interactions that appear most liable to support interactional reflective practice in pre-service teachers. For instance, it would be useful to compare different interactional modes (e.g., face-to-face, synchronous online, asynchronous online) and interactors (e.g., student teachers at university, pre-service teachers during the internship, university instructors, associated instructors). A further avenue would be to seek a deeper understanding of how interactional reflective practice is developed over time in pre-service students in initial training programs. In this respect, a comparison across students by program year or a longitudinal study would be promising research directions.

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