

Building an Island of Rationality¹ Around the Concept of Educational Differentiation²

LUC PRUD'HOMME, ANDRE DOLBEC, MONIQUE BRODEUR, ANNIE
PRESSEAU, & STEPHANE MARTINEAU

Université du Québec à Trois-Rivières

Introduction

Quebec's current education reform forces school personnel to adapt to a new program and encourages them to reconsider their educational practices in order to meet the expected outcomes for all students. In this context, the concept of differentiation is presented as one of the key factors that encourage learners' skills development and access to a higher level of success (Conseil supérieur de l'éducation, 2002; Groupe de travail sur la réforme du curriculum, 1997; MEQ, 2003a). Use of the concept is far from declining. Indeed, mention of differentiation seems to be more and more explicit in official documents. For example, the curriculum for the first two years of the secondary school program³ (MEQ, 2003b) deals with differentiation in its very first chapter, in terms of a relevant educational practice with respect to its direction, something that the new primary school program (MEQ, 2001) failed to do as clearly. Moreover, certain publications leave no doubt as to the importance of differentiation in the ability to make the "shift to success" for all students.

At the outset, the Committee considers differentiation as one of the foundations of students' success. (Commission des programmes d'études, 2002, p. 3)

[TRANSLATION]

These findings suggest the need to examine the concept of differentiation in the current context of education reform underway in the province of

Quebec. While differentiation tends to dominate discussions as a privileged means to counter the phenomenon of academic failure, we have noticed that teachers question themselves both here and elsewhere on the nature and feasibility of this differentiation, taken here minimally as a consideration of the diversity present in a group of students (Conover, 2001; Legrand, 1999; McGarvey, Marriott, Morgan and Abbott, 1997; Prud'homme, 2004). In order to embark on the path our article proposes with a basic understanding of the concept, we might say overall that authors in this field define differentiation primarily in terms of a process by which the teacher adjusts his teaching to allow each of his students to achieve a learning objective. In this sense, as Stradling and Saunders (1993) explain, differentiation is not presented as an end in itself, but rather as:

the process of matching learning targets, tasks, activities, resources and learning support to individual learners' needs, styles and rates of learning. (Stradling and Saunders, 1993, p. 129)

A review of empirical studies on the concept of educational differentiation allows us however to realize that in spite of an abundant theoretical knowledge base on the topic, teachers differentiate very little (Conover, 2001; Lebaume, 2002; McGarvey *et al.*, 1997). If the implementation of differentiation in the field appears problematic, the difficulties raised also imply knowledge that requires clarification, both for the practice community and the research community in order to better define the concept. An inability to understand differentiation in relation to its implementation in the classroom and in the school tends to perpetuate or confirm the perception that it is a distant ideal to which we can only aspire. If we are in the presence of an alternative that can truly support the success of all students, it appears crucial to examine the concept in relation to the complexity of actions in the classroom.

In this perspective, we propose to build an *island of rationality* around the concept of differentiation, i.e. a temporary representation that pursues the goal "of allowing rational communication and debate" (Fourez, 1997, p. 221) with regard to this concept that acts as a watchword within the official discourse. In this sense, the *island of rationality* cannot disregard a context or project that promotes differentiation, which is what we are looking to highlight through a broad stroke description of the key elements of a problem that, ultimately, calls for new, more comprehensive research. Subsequently, we will re-specify the nature of the concept and propose theoretical foundations based on an analysis of diversity in the school context. For within the concept of differentiation, diversity is a pivotal element towards which practitioners currently express great confusion (Legrand, 1999).

Rethinking the challenge

The differentiation issue does not originate specifically from the process of implementing the current education reforms in the province of Québec. In fact, the founding texts point out that differentiation is an age-old concern that attempts to adapt teaching to the individual differences in order to ensure the progression of each student (Lebaume and Coquidé, 2002; Legrand, 1986; McGarvey *et al.*, 1997). However, the expression “differentiated education” only became popular in France in the 1970s, when introduced by Legrand, to whom several francophone authors attribute its “reinvention” (Astolfi, 1998; Gillig, 1999; Meirieu, 1987; Perrenoud, 1997a; Zakhartchouk, 2001).

At that time, the movement to democratize education was underway, in an attempt to thwart a problem of exclusion caused by teaching offered in accordance with a predetermined social and professional purpose⁴. In attempting to prevent the exclusion of good students from education due to their social origin, this movement may in fact have generalized a similar instruction program for all students, regardless of the heterogeneity of the clientele. Such a result is rapidly associated with an increase in academic failure (Groupe de travail sur la réforme du curriculum, 1997; Perrenoud, 1997a). In this context, Legrand (1986) concludes that the implementation of educational differentiation is necessary within the mixed-ability classroom.

While at the time, Legrand (1986) seemed to associate individual differences with cognitive behaviours and initial emotional characteristics, important issues related to this diversity seem to have led to a proliferation of research that, paradoxically, brings to light the complexity and the great difficulty in defining this phenomenon. Even today, it remains difficult to reach a satisfactory typology with regard to the meaning of diversity. A good many authors point out that a large number of variables intersect, overlap and appear interdependent. Also highlighted is the fact that certain dangers exist in the consideration of diversity that are related to excessive simplifications, to limiting categorizations and to the application of a static vision of the phenomenon. Such dangers can lead to “enclosing” the learner in a single activity in order to respect his differences (Astolfi, 1993; Corno and Snow, 1986; Curry, 1990; Ducette, Sewell and Poliner Shapiro, 1996; Meirieu, 1987; Paine, 1990).

There is thus, on the one hand, a complex and difficult to define diversity that emerges in the classroom and, on the other hand, an abundance of literature on the topic reaffirming that one can no longer ignore the multitude of students’ needs through uniform practices (Ducette *et al.*, 1996; Gardner, 1996). This statement indicates without question that educational differentiation remains a plausible solution to the consideration of diversity.

Differentiation is therefore becoming a topic of prime importance in research publications, in a context where war is waged on exclusion and academic failure, where education reforms aspire to reach high standards for all students, and where demographic projections highlight the growth of diversity and an increasingly abundant amount of information concerning its multiple variables (Brimijoin, 2002; McGarvey *et al.*, 1997; Perrenoud, 1997a; Simpson and Ure, 1994; Stradling and Saunders, 1993; Tomlinson and Demirsky, 2000).

Paradoxically, its importance in discourse is accompanied by great timidity in its implementation in the field (Lebaume, 2002; McGarvey *et al.*, 1997; Simpson and Ure, 1994). This difficulty in articulating differentiation in the classroom is attributed to a number of factors. On the one hand, in explaining the problem, mention is made of the plurality of theoretical perspectives on the topic. In addition to the use of several associated terms with very subtle differences⁵, it seems that certain amounts of cultural protectionism may have hindered relations able to clarify the concept. Works by Bloom (1979), contributions from the fields of differential psychology, of developmental psychology and of cognitive sciences, input from the *new education* movement and from supportive education, as well as the many attempts of educational innovations⁶ may have been better off seeking inspiration between themselves to direct a genuine implementation in the classroom (Gillig, 1999; Weston, 1992; Zakhartchouk, 2001). Moreover, recent theoretical articles are breaking away from the initial differences and are presenting a more encompassing view that has yet to affect the "great vagueness" (Zakhartchouk, 2001, p. 32) that surrounds the concept. According to the authors, differentiation must call upon a systemic perspective and must be part of a socio-constructivist paradigm of learning (Perrenoud, 1997a; Tomlinson, 1999). Differentiation entails the notion of learning paths experienced within meaningful situations adapted to the student's level, calling for flexible as opposed to rigid methods (Astolfi, 1998). Differentiation requires practices based on transfer and metacognition, while at the same time giving considerable importance to the regulation of these situations (Allal, 1988; Grangeat, 1999). Furthermore, to complete this more contemporary vision of the concept, it seems that differentiation also includes links to be made with the practice of democratic ideals in order to maintain the awareness of inequality in all its forms and of the need for heterogeneity to make up the balance in a community (Astolfi, 1998; Corno and Snow, 1986; Perrenoud, 1997b). In our opinion, these conclusions appear ambitious and difficult to implement in the field. The theoretical differences that have marked the evolution of knowledge on differentiation appear currently to be giving ground to a convergence without compromise⁷ that maintains the eminently complex character of its implementation.

Indeed, regardless of the difficulties concerning its conceptualization, differentiation demands a certain rigour, a sense of organization and a flexibility in order to resort to a set of complex situations and techniques that allow one to understand and manage the students' multiple differences (Astolfi, 1998; Simpson and Ure, 1994; Weston, 1992). Compared to a more traditional approach, differentiation implies much more preparation time and educational knowledge (McGarvey *et al.*, 1997), aspects that initial and continuing education programs still seem to neglect (Melnick et Zeichner, 1998). For example, the majority of teachers have received very little training on diversity and the few courses that address this issue do so in a decontextualized manner, dwelling only on students' characteristics and neglecting teaching methods that might help the consideration of this diversity (Lesar, Benner, Habel and Coleman, 1997; Tomlinson, Callahan, Tomchin, Eiss, Imbeau and Landrum, 1997).

With these difficulties in mind, an interactive professionalization is contemplated in order to structure an efficient implementation of differentiation (Perrenoud, 2002). The heterogeneity that results from having teachers work in a team creates a promising context in terms of being able to respond to the heterogeneous needs of the students, by simultaneously offering conditions of analysis and of flexibility that are apparently necessary for the understanding and the consideration of diversity (McGarvey *et al.*, 1997; Stradling and Saunders, 1993; Weston, 1992).

There is evident agreement in the published research as to the proposed collaboration between practitioners in order to compensate for shortcomings in training school actors to consider diversity and to compensate for the limits encountered by an isolated personnel member confronted with the heterogeneity that exists in a group of students. This aim for collaboration becomes more complex when the theoretical research suggests that a new connection between research and practice is essential in order to react to the complexity of the differentiation problem and to redefine the concept while taking into account the context in which it is expected to function.

The findings of the present study suggest that a clearer definition of the concept of differentiation is needed which is grounded in realistic action [...]. (McGarvey *et al.*, 1997, p. 362)

It seems that the researcher's presence must support the creation of more contextual knowledge concerning professional differentiation experiences, which are not yet well-documented (Gillig, 1999; Lebaume and Coquidé, 2002; Sensevy, Turco, Stallaerts and Le Tiec, 2002; Tomlinson and Demirsky, 2000).

The problem of educational differentiation encourages one to rethink the challenge of its implementation by resorting to new, more comprehen-

sive research approaches, in order to address the realities of the classroom in all their complexity. According to Anadón (2000), it may be a question of seeking to understand the concept with the help of:

approaches capable of considering the researcher-actor interaction, the theory-practice dialectic, the subjectivity of one and the other as well as the context in the understanding of the teacher as social actor. (Anadón, 2000, p. 28) [TRANSLATION]

Creating an interpretive universe of differentiation

Insofar as differentiation calls for an inter-influence between practical and theoretical sensitivities, an inventory of *initial interpretive referents* becomes a requirement to address the problem *with* the practitioners. From a hermeneutics point of view, this awareness-building exercise appears to us unavoidable, firstly, to prevent the researcher from “remaining a prisoner of his unconscious mental outlines” (Paillé and Mucchielli, 2003, p. 17) and, secondly, to increase his sensitivity in his observation of reality. From a practical point of view, the meeting between these two sensitivities must, at the request of the practitioners, be able to translate into a sharing of theoretical perspectives capable of supporting the construction of meaning for action in the classroom.

As such, we began by consulting general reference works, which allowed us to establish a link between the appearance of the term “differentiation” in education and, initially, the writings of Legrand (1986, 1995), followed by those of Meirieu (1985, 1987), the *Groupe français d’éducation nouvelle* (1977, 1996) and Perrenoud (1994, 1997). Monographs written by Perraudau (1997) and Gillig (1999), as well as the writings of Astolfi (1993, 1998) completed this initial list of references to understand the evolution of differentiated education in the French-speaking countries of Europe. Literature searches in specialized databases allowed us then to locate recent works, which were necessary to put together our corpus of analysis. Furthermore, the term “differentiation” was designated in several different ways: “differentiation”, “differentiated classroom”, “curriculum differentiation” and “differentiated instructional design”; terminology affiliated with the field of educational adaptation (“adaptive education”, “adaptive teaching”, “setting”, “streaming”, “ability grouping”, “within-class grouping”, “mixed-ability grouping”, “inclusive education”); and with individual and cultural differences of students (“diversity in education”, “individual differences”, “cultural diversity”, “aptitude”, “inaptitude”). Meta-analyses dealing with the consideration of diversity in schools and the adaptation of teaching to individual differences allowed us to trace the evolution of “adaptive teaching”—which is centred mainly on exceptional learners or handicapped

learners—towards the concept of differentiation in terms of a practice intended for all the students in a classroom in order to encourage learning⁸. Works by Weston (1992), Stradling and Saunders (1993) in England, McGarvey *et al.* (1997) in Northern Ireland, Simpson and Ure (1994) in Scotland and Tomlinson (1999) in the United States are proof of this evolution. Further specialized searches enriched the corpus of analysis, thus creating material encouraging us to generate and present, through this article, an *island of rationality* surrounding the concept of educational differentiation. Indeed, at the conclusion of this initial investigation, we note that theorists in this field do not always agree on its nature. In the research, we discovered that differentiation can be a tool, an attitude or a teacher's impact (*effet-maître*⁹), an approach, a system of beliefs or a philosophy, a strategy for curriculum adaptation, an organizational strategy, a process for change in practices or a model for class management (Astolfi, 1998; Bressoux, 2002; Brimijoin, 2002; Conover, 2001; Surchaut, 2002; Tieso, 2000; Tomlinson, 1999; Zakhartchouk, 2001). It can also be a means or a practice of formative assessment, because of the strength of the associations certain authors make with the regulation process (Allal, 1988; Perrenoud, 1997a). Still current, the remarks made by Weston (1992) illustrate particularly well this need to proceed initially with a theoretical construction that aims to relate the finalities, the foundations and a definition of differentiation to encourage debate and discussion that surround such a polysemic concept.

The real problem goes beyond the clumsiness of the word and the difficulty of pinning down a definition. The problem is that if the inquirer asks a range of education professionals "Just what do you mean by differentiation?", "What are the practical implications?", he or she could receive conflicting definitions, each carrying with it a train of educational beliefs and practices. (Weston, 1992, p. 6)

In the following paragraphs, we therefore recount the development of this temporary assertion, which is meant to be a proposal of meaning whose aim is to "work towards an improved understanding of the world, and not the reverse" (Paillé and Mucchielli, 2003, p. 45). This construction obviously implies a rereading of the origins of the differentiation concept, which we chose to undertake in the light of an analysis of the phenomenon of diversity in the school context. According to Rumelhard (2002) and Weston (1992), an understanding of this phenomenon is, without a doubt, the premise from which differentiation must seek to conceptualize itself.

A discussion on the phenomenon of diversity in education

At the outset, the writings suggest that a group of students always presents individual differences with respect to abilities, skills, cognitive styles, lear-

ning strategies, types of intelligence, interests, motivation, cultural codes and past experiences (Corno and Snow, 1986; Chevrier, Fortin, Leblanc and Théberge, 2000; Ducette *et al.*, 1996; Dunn, Beaudry and Klavas, 1989; Gardner, 1996; Grant and Secada, 1990; Lesar *et al.*, 1997; Zakhartchouk, 2001). In short, when the topic of diversity is mentioned in education, it refers to the different modes of access to learning—or to the relation to knowledge (Charlot, 1997)—that the students in a group favour. Diversity is linked to the needs, the preferences, the difficulties, and to the learning styles and rhythms that students demonstrate in relation to the characteristics that can be seen as biological, psychological or socio-cultural.

Theoretical proposals have been highlighted, in which the authors look to regroup the many variables into a limited number of categories (Corno and Snow, 1986; Meirieu, 1987; Tomlinson, 1999). However, these proposals remain models that group together variables with theoretical foundations, proposals and different viewpoints on educational problems, needing always to be documented by research in terms of more systemic articulation (Ducette *et al.*, 1996; Tomlinson and Demirsky, 2000). In proposing one of these inclusive models, Ducette *et al.* (1996) redefine diversity in these terms:

We define diversity as encompassing the domain of human characteristics that affect an individual's capacity to learn from, respond to, or interact in a school environment. (Ducette *et al.*, 1996, p. 324)

Although interesting due to the contribution of diversity's "contextualized" character, we consider that this definition remains fragile when confronted with the dangers that a static vision of its characteristics creates. Indeed, in her empirical research, Paine (1990) points out that students in teacher training programs associate the phenomenon of diversity with a static conception of the individual, without ever referring to the process within which it comes into being, expresses itself and evolves. Paine attributes this fact to a disturbing, individual, conservative orientation of the phenomenon for the professionals that will have to come to terms with this diversity on a daily basis. She concludes her research by stressing the need to associate the phenomenon with the context that governs its analysis. In linking the recognition of diversity in education with its potential implications on teaching and learning in context, the dynamic aspect of the phenomenon becomes more tangible, as it is immediately linked to different possibilities of action and intervention, as well as to their effects. A number of empirical researches confirm this conclusion, where improvements in the attitudes and skills have been noted in the face of diversity among in-service teachers who have studied the phenomenon through situations occurring directly in the field (Allen, 2000; Rothenberg, McDermott and Gormley, 1999). Similarly, other researchers refer to the intraindividual differences that are observed

from one situation to another or from one moment to another in the same person in order to justify that the field of individual differences calls for a more dynamic vision of the phenomenon (Chevrier *et al.*, 2000; Rieben, 2000; Snow and Swanson, 1992).

It seems therefore that diversity may become heuristic in education if we succeed in reacting, on the one hand, to research that has been dominated for too long by a mechanistic and determinist perspective and, on the other hand, to the blatant lack of empirical research in the field of qualitative individual differences (Chevrier *et al.*, 2000; Rieben, 2000). It appears necessary to associate the understanding of diversity with its demonstration from the point of view of learning and teaching in context and, as an indirect result, with the willingness to rethink the phenomenon in the perspective of reacting to the strength of uniform teaching practices.

The recognition of diversity requires that “education as usual” will no longer work. There is almost universal agreement that all aspects of diversity require change in the usual way of instructing students. (Ducette *et al.*, 1996, pp. 367–368)

It remains, finally—just as pointed out in the writings on differentiation—that a school interested in students’ individual differences or in diversity must also be part of a perspective in which democratic ideals are practiced (Corno and Snow, 1986; Ducette *et al.*, 1996; Sensevy *et al.*, 2002). Apparently, the consideration of diversity must be associated with an emphasis of the differences, where demonstrations of diversity are “experienced collectively as constituent of the balance of the group in question, for uniformity would scarcely be appreciated” (Astolfi, 1998, p. 2). It is seemingly only in the context of a calling into question of its axiological and ideological foundations that the phenomenon of diversity can occur (Lebaume and Coquidé, 2002; Rumelhard, 2002).

Our definition of diversity

What stands out at the end of this investigation is that, when dealt with in the field of education, diversity may be defined as *the expression of human characteristics, of incorporated schemas¹⁰ or of preferences referring to the learner’s past experiences, called for as he is dealing with new situations that are proposed to him*. If this diversity is recognized within a perspective of success and of social justice that characterizes the differentiation project, then the diversity demonstrated in the classroom must be perceived as the legitimate expression of a desire, a need, a difficulty, an interest, a choice or a way of proceeding to achieve a learning objective. In an educational perspective, openness to different learning paths must accompany the recognition of

the phenomenon; otherwise, diversity becomes a source of problems since the learners, with their numerous individual differences, do not necessarily approach all learning situations in a unique manner or in accordance with the teacher's expectations. Therefore, in order to govern the recognition of the phenomenon, it seems to us imperative to clarify the conception of the human being (1) that refers to an ethical posture; the conception of learning (2) that refers to an epistemological posture; and that of society (3) that implies an ideological posture. Figure 1 presents a topological linking of these different elements that are, we think, relevant, even essential to consider in order to allow diversity to be part of the resources to counter the phenomenon of academic failure.

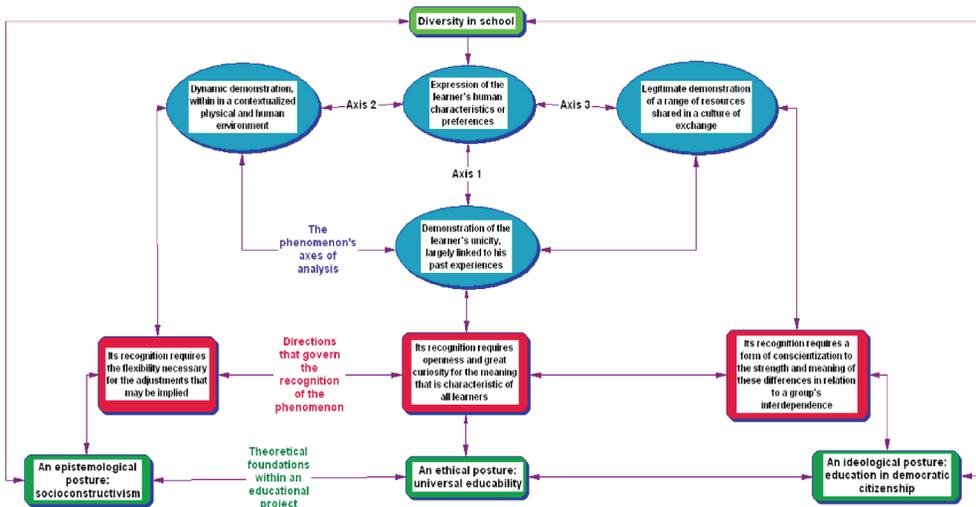


FIGURE 1. Diversity of students in the school context

Figure 1 is structured in three levels. On the first level, we point out that our definition of diversity can be analyzed and understood in relation to three axes. These axes of analysis lead to specific directions that govern the recognition of the phenomenon (level two), which, in turn, are part of the theoretical foundations (level three) that clarify the values and conceptions underlying the educational project of considering this diversity.

Axis 1

To begin with, the human characteristics or preferences that the learner expresses have to be understood as a demonstration of each individual's unicity (Axis 1), a unicity that is largely related to his past experiences. In other words, they are the expression of what the learner understands of the situation

in which he finds himself, based on his past experiences within or outside of the school context. The recognition of these demonstrations of diversity requires openness and great curiosity on the part of all actors faced with the differences of the other, which necessarily implies a decentration with respect to one's own characteristics or personal preferences. In this sense, it seems to us imperative to recognize that all learners have meaning (Jalil Akkari and Gohard-Radenkovic, 2002), which corresponds to an ethical posture within an educational project that chooses to believe in the potential of success in each of the students, i.e., to believe in universal educability.

Axis 2

Secondly, in giving all its importance to the situation in which it is demonstrated, our definition seeks to report on the dynamic and contextual character of diversity (Axis 2). In such a perspective, diversity is seen as a phenomenon that is expressed and created during the encounter between a student and a situation in a contextualized physical and human environment. This expression is not rigidly set, and can be modified when certain changes to the particular situation are agreed to—on the condition that, evidently, these expressions and adjustments are perceived by the actors as legitimate and original ways to approach reality. After all, recognition of the phenomenon loses all its meaning if it is not associated with the flexibility and adaptability necessary for the adjustments that the expression of this diversity within the classroom can require. Therefore, beyond the interindividual differences observed in a group, there are also intraindividual differences that are expressed from time to time, or from one context to another. These differences, that are demonstrated or created in relation to the situation experienced as the learners perceive it, are definitely part of a general theoretical framework that recognizes or emphasizes the interpretation and creation activity of the actors in a situation. In this sense, we believe our definition of diversity corresponds to epistemological constructivism, “that emphasizes the role of the representations in relation to which we interpret the data of experience” (Legendre, 2004, p. 71). More precisely, we might say that our definition of diversity corresponds to an epistemological socio-constructivist posture, which allows us to insist on the central role of social interactions, or of the human environment, in the understanding of the expression of the learner's human characteristics or preferences.

Axis 3

Finally, the phenomenon of diversity defined in an educational project geared to success and social justice calls for a culture of exchange and interdependence that ensures the legitimacy of its expression (Axis 3). This is the condition that allows diversity to express itself freely and, furthermore, enriches the

range of possibilities or resources towards the achievement of an objective. From *indifference to differences*, a now accepted expression of Bourdieu (1966), recognition of the demonstrations of diversity must occur to the benefit of all actors in the class, with the ultimate goal of “enabling all students to reach the same levels of competency and offering them the same possibilities of academic progression” (Jalil Akkari et Gohard-Radenkovic, 2002, p. 155). In this sense, recognition requires a certain form of conscientization and analysis of the phenomenon to better understand its worth and strength within a group. Diversity must recognize itself in relation to the need for heterogeneity to constitute a community’s balance. Defined and recognized in this manner, it is associated with an ideological or political posture that, in our opinion, is part of a project to educate in democratic citizenship.

Our definition of diversity and the directions that govern its recognition in the school context appear therefore to require association with explicit foundations in terms of the ethical, epistemological and ideological levels in order to be truly a part of a perspective of fighting academic failure and encouraging success for all students. After all, it is a question of finality that the currently high prestige project of educational differentiation is trying to reach.

A discussion on the origins of the differentiation concept

To start, we will repeat that our inventory of writings allowed us to realize that, over the course of its evolution, differentiation has been associated with an adaptation of teaching in accordance with a certain sociological determinism, as well as with different measures of adaptation to the structure designed to respond to the needs of students in situations of failure, such as repeating a year, exceptional classes and educational support. In our opinion, these associations appear strongly related to a search for homogenization and individualization of teaching, possibly inspired by the works of Legrand (1995) that deal with educational differentiations in terms of effective implementation of a mastery learning, as conceptualized by Bloom (1979).

While contrary to the ideological posture that we pointed out as essential to the recognition of diversity, these differentiation measures show an approach that is centred on the previous diagnosis and on prerequisites, which Perrenoud (1997a) presents as the *childhood diseases* of differentiation. We consider that the publication of a collective work under the direction of Huberman (1988) was the starting point of an attempt to clarify the difference between options that reflect opposing epistemological postures that nonetheless carry the foundations of a more current vision of differentiated education. It is first by evoking the centration of Bloom’s initial cognitive behaviours as well as Piaget’s unidimensionality of cognitive development that Rieben (1988) puts forward the hypothesis that the field of education underestimated

the scope and the complexity of diversity that characterizes individuals. In so doing, she highlights the limitations of a perspective of differences that is too sequential and mechanistic, which suggests that only differences in rapidity can be demonstrated. As a reaction to this exaggerated linearity in the sequence that Bloom proposes, Allal (1988) suggests a *widening* of the formula that would allow more diverse and functional remedial methods. Based on a constructivist frame of reference, and with the help of empirical data, she shows that different regulation processes allow a greater educational differentiation as well as compensation for the intervention of a remediation mechanism similar to tutorage, which is often too slow in coming.

These ideas are largely taken up by Perrenoud (1997a) in a work that, in our opinion, highlights the urgent need to break away from the works of Bloom, and to move from *intentions to action*. Without abandoning the branching of learners toward situations belonging to their zone of proximal development, he suggests that differentiation take the form of regulation within a situation. He concludes that "differentiating is proposing to each student, as often as possible, a learning situation and tasks that are optimal for him, by mobilizing him in his zone of proximal development" (Perrenoud, 2002, p. 40), a definition that, just as Meirieu's (1996)¹¹, remains relatively vague as to the diversity implied when dealing with differentiation. Finally, Perrenoud (1997a) points out that his conceptualization demands a reorganization of the school time and organization of activities intimately linked to active methods, to project approaches and to the resolution of problem situations, approaches that, in his opinion, allow one to support the transfer of learning.

These conclusions are no different from those of Corno and Snow (1986), who specify that the intention to adapt teaching must be accompanied by a conception of education where the ultimate goal is to develop aptitudes linked to metacognition and transfer. These authors define the adaptation of teaching by emphasizing the crucial role of mediation, which is described as a continuum that allows a response to the different needs of the learners. On one end, there is explicit teaching and training for cognitive strategies, while on the other, there are approaches by discovery. The authors also show the utility of cooperative learning to overcome certain inaptitudes or to increase the quantity of mediation, an option that will be taken up again and specified through the definition of, among other things, guidance and learning groups as central elements of a teaching adaptation practice.

[...] the tutor not only helps the child complete the task at hand but also gradually promotes the additional skill and strategy development that will enable the child to accomplish similar tasks alone. (Snow and Swanson, 1992, p. 615).

Inspired by the premise that learning is initiated by the social interactions in a process of interiorization (Vygotsky, 1978), Snow and Swanson (1992)

elaborate on the virtues of the support process. Accompaniment by peers or by a tutor facilitates the adjustments throughout the situation, allowing at the same time that the requirements of a task evolve in interaction with the zone of proximal development, which is also evolving.

Tomlinson (1999) created a model of differentiation that, according to her, also falls within a constructivist perspective of learning. She defines the concept as *"an organized yet flexible way of proactively adjusting teaching and learning to meet kids where they are and help them to achieve maximum growth as learners."* (Tomlinson, 2001, p.14). To date, implementation of this more systemic model still requires specifications as to its actual and potential articulation in the classroom, prominent fact emerging from empirical research based on the model (Conover, 2001; Fleming and Baker, 2002). Our analysis leaves some doubt as to the contextual and dynamic character of diversity that is inherent to a constructivist perspective of the phenomenon. While the model presents several examples of measures that allow reaction to interindividual differences, it seems to us less explicit with respect to intraindividual differences. Finally, in our opinion, the ideological posture inherent to the recognition of diversity needs further investigation. In completing a doctoral thesis based on Tomlinson's works, Brimijoin (2002) appears to agree with this conclusion, suggesting that subsequent research should establish a clearer definition of relations between differentiation and the building of a community of learning. Just as Brimijoin (2002) seems to sense, we believe that differentiation should more explicitly integrate a perspective of improved status with respect to differences, thus seeking to support the students' interest towards one another in order to favour the development of a sense of mutual responsibility between them. As the school system has long valued certain ways of proceeding in relation to others that are seen more as expressions of difficulties (Gardner, 1996), this posture prevents recognition of diversity from being translated into a new model of students' hierarchical organization (Astolfi, 1998; Perrenoud, 1997b). Beyond a perspective of equity and balance that are both essential to social cohesion, differentiation may fall in the trap of two tier- or multi tier instruction. In this sense, diversity must become an object of learning in itself, allowing an increase in students' awareness with respect to the considerable differences, as well as an increase in the cognitive flexibility inherent to the implied metacognitive activity (Grangeat, 1999).

According to our definition of diversity, differentiation suggests both openness to mobilization by the teacher and the student of a variety of strategies and, implicitly, a decentration with respect to their personal preferences to confront them and to be enriched by the different ways of proceeding that are demonstrated in a situation. By specifying that differentiation *"evokes an attitude in order to better manage a set of resources in a calculated manner"* Astolfi (1998, p. 2) supports the need to redefine it¹² while resorting to a conceptualization

that incorporates both the teacher's action and thought. As teaching is not entirely pre-regulated (Bressoux, 2002) and diversity implies the expression of manifestations in the course of particular situations, differentiation also strongly concerns decisions and approximations produced in the actions and interactions that occur in the classroom. The teacher makes choices that are certainly related to a system of values, beliefs and preferences with respect to his education mission. In this sense, according to Jalil Akkari and Gohard-Radenkovic (2002), differentiation must be linked "prior to all educational action (universal educability), to the learning process (needs and motivations of the child) and also to the results (academic trajectories)" (p. 155).

Our initial definition

In light of these considerations, of the complexity and the stakes that the recognition of students' diversity involves, and of the research papers on the concept of the teaching practice (Altet, 2002), it seems to us favourable to view differentiation in terms of a *collaborative model of the teaching practice centred on diversity*. In admitting that differentiation is currently evoked in the perspective of thwarting indifference toward the students' heterogeneity demonstrated by the omnipresence of uniform teaching practices, we find it essential to situate the phenomenon of diversity at the core of a professional practice that hopes to encourage success of all students in a perspective of social justice. In making such a choice, the teacher adopts a practice that is centred on the student, where openness to the learners' diversified needs becomes an object of constant and explicit concern in the planning of professional activities, whether closely related or not to the teaching/learning that occurs in the classroom. In relation to the works of Vygotsky (1978), we believe that it is by becoming, with others, part of a process of investigation, of research and analysis of diversity that the teacher can make this phenomenon a central object of his practice. In order to better recognize and understand the diversity demonstrated in the classroom, the teacher would do well to undertake explicitly a decentration process with respect to his own characteristics or personal preferences, a process that can be made easier through interactions with colleagues who share the same objective.

Let us recall that, as we have described in Figure I, diversity calls for values, beliefs and attitudes associated with well-defined ethical, epistemological and ideological foundations. These foundations, necessary to the recognition of the phenomenon, are no different from those that must support the articulation of educational differentiation. They are, however, specified by directing the decision-making of teachers and students alike to design, organize and carry through the series of actions and interactions in the school environment. In this sense, we believe that differentiation includes the

teacher's entire set of procedures in "this contextualized interactive process" (Altet, 2002, p. 86) that teaching constitutes, as well as a cognitive dimension that refers to the choices, rules, decision-making, values and ideologies that constantly interact in all spheres and at all stages of his work.

In situating diversity at the core of educational differentiation, this model of teaching practice therefore encourages professional collaboration in order to better understand and broaden the *palette of the possible* in education. It is a model that faces the challenge to support all students in the updating of their potentialities, in overcoming the limits still linked to a context and associated with prior experiences, and in the makeup of a responsible democratic citizenship. These ethical, epistemological and ideological postures must therefore once again be the subject of reflection among the actors who hope to be a part of this model of teaching practice.

An ethical posture of educational differentiation

Differentiation presupposes a deep belief according to which all students can progress and succeed, which Meirieu (1996) defines as the *premise of educability*.

Nothing ever guarantees the teacher that he has exhausted all methodological resources; nothing assures him that there remains no other unexplored method that may succeed where all else has, until now, failed. (Meirieu, 1996, p. 142) [TRANSLATION]

This premise is presented as an essential condition in terms of the educational attitude to include its practice in terms of differentiation. Without denying the obstacles of reality in the classroom, it proposes a *just* thesis in its practical function, because it encourages research *with others* for unexplored methods of learning. In this manner, articulation of this premise cannot be disassociated from a clarification of the frame of reference that the practitioner uses to reflect upon learning and knowledge to ensure a certain coherence in his interventions (Pratt, 1998).

An epistemological posture of educational differentiation

In our opinion, a teaching practice centred on diversity absorbs premises and beliefs that support the understanding of the aforementioned phenomenon. As such, in recognizing the dynamic character of diversity that is apprehended through an activity of interpreting and of building actors in context, it appears to us essential, even unavoidable, to include differentiation in an epistemological socioconstructivist posture¹³ (Pépin, 1994; Legendre, 2004; Windschitl, 2002). In this paradigm, learning is perceived as "a dynamic and adaptive process of building, adaptation, calling into question and of knowledge development" (Jonnaert and Vander Borgh, 1999, p. 33). [TRANSLATION]

Placing one's practice within this general frame of reference¹⁴ has major implications with respect to what Pépin (1994) calls the "self-evidencies" of the school business, and includes numerous dilemmas that can, in spite of everything, be considered in order to prevent a contemporary vision of differentiation from recreating past pitfalls, that are particularly related to the use of opposite epistemological options. Moreover, research shows that students' differences can become the driving force behind learning in a process of knowledge building for all students, including those recognized as having special needs (Sensevy *et al.*, 2002).

At the risk of appearing idealist, we will also point out here that a reflection on this frame of reference can encourage the teacher to place himself in a reflective process *with others* in order to better recognize and understand the phenomenon of diversity, as well as its implications on learning and teaching that occur in the classroom.

An ideological posture of educational differentiation

In the end, differentiation seems unable to be placed outside of a project to educate in citizenship based on a "report of vital interest to the Other" (Galichet, 2001, p. 37).

Differentiated education is primarily a tool that only has meaning within a democratic society, where respect for the particularities and for people must be combined—no easy task!—with the search for common rules that are always being reinvented, or, at least, are never static, and with what is called "citizenship" [...] (Zakhartchouk, 2001, p. 36) [TRANSLATION]

This perspective considers "citizenship as the interest that citizens show one another and the mutual responsibility that they develop between themselves" (Galichet, 2002, p. 105). From the outset, we might say that it is a posture that invites the teacher to take an interest *with others* in the building of a fairer, more equitable society. Fundamentally speaking, it is a posture that promotes the development of skills among students with respect to conscientization and social action, all this with a view to supporting a better knowledge of oneself, and then to facilitate the respect and genuine interest from the viewpoint of diversity (Perrenoud, 1997b). In this perspective, consideration of diversity calls for the building of a more inclusive school system, thus creating a rich and realistic context for the learning of respect and concern for others and the differences they demonstrate (Ducette *et al.*, 1996). Apparently, this is a requirement that must take place very early in the citizen's training.

We must act upon the young generations, very early, from the age of three or four years, if only to teach them that different languages exist, to make them understand the very idea of diversity. (Eco, 1993, p. 4) [TRANSLATION]

Conclusion

At the risk of appearing obsessive, it appears to us essential to point out that this conceptualization is the theoretical universe with which we have initiated our search for a meaning to give to the concept of differentiation, articulated within the action of a group of practitioners at the primary level that are eager to differentiate.

It constitutes a guide or a toolbox whose goal is to sharpen the awareness of the researcher in observing this practical rationality that will be expressed in actions, in thoughts and in declarations of *practitioners* looking for to give meaning to differentiation in their work context.

The remarks made by Camélia, a teacher in her twentieth year of experience, show the essential character of this researcher's toolbox in the attempt to understand the teacher's *voice*, which is recognized at once in our posture as a competent and meaningful social actor. These remarks also allow us to temporarily conclude with a demonstration of this practical rationality (Perelman, 1970a; 1970b) that exists and that seeks to update itself among the actors who are pursuing an ideal of social justice through the success of all students.

It is as if you have to keep the differentiation lamp burning. You have to stay in touch with the subject and it is not always easy. We spoke of old reflexes; it is true that it comes back quickly. (remarks by Camélia, May 2005). [TRANSLATION]

Notes

1. The expression is taken from Fourez (1997).
2. This article was originally published in French in the Fall 2005 issue of *JCACs* (vol. 3, no. 1: 1–32). It makes use of certain elements from the problem and conceptual framework sections of a doctoral thesis currently in preparation.
3. In Quebec, the first two years of the secondary school program correspond to junior high school in other provinces.
4. For example, schools of the well-to-do provided a lengthier, more theoretical instruction program, considering that their students were « destined to be leaders », whereas schools of the less fortunate offered a shorter, more efficient instruction program, so that their students would quickly be able to occupy their place in society as manual workers (Legrand, 1995).
5. De Vecchi (2000) notes the use of terms such as *varied education*, *diversified education*, *differentiated education* and *educational differentiation*.
6. Works by Dewey in the United States, Decroly in Belgium, Claparède in Switzerland, Kerchensteiner in Germany and Freinet in France were all part of the research on teaching practices that recognize the students' specificity (Legrand 1995).
7. In Quebec, Caron (2003) published a 590 page guide on the topic of differentiation. The concepts covered and the proposed changes in practice are numerous

- and ambitious, which clearly demonstrates the issue of lack of compromise.
8. It seems that in the United States, differentiation is a concept that was first studied in response to a problem related to the needs of gifted students, and subsequently dealt with all students in a heterogenous classroom (Hertzog, 1998; Olenchak, 2001; Tomlinson 1991, 1999).
 9. In French-speaking countries, this concept is used to deal with the impact of a teacher's expectations, attitudes, beliefs and openness towards the learning and well-being of students in the class.
 10. Sociologist Pierre Bourdieu (1980) would call this *habitus*.
 11. Meirieu describes differentiation as "a way to put the students to work and to place oneself in the service of this work [...] to create optimal conditions such that the students themselves, with their strengths and limitations, will progress as efficiently as possible." (Meirieu, 1996, p. 95)
 12. Similar to Astolfi (1998), we prefer speaking of "educational differentiation", rather than differentiated pedagogy, a choice that seeks to distance itself from the temporary modes to evoke more a constant search for flexibility and openness to the different learning paths.
 13. In light of the references to language, to dialogue and to reflective collaboration between students in theoretical writings on differentiation, we pragmatically choose the term "socioconstructivism", while being aware that it currently gives rise to numerous debates (Windschitl, 2002).
 14. As Legendre (2004) emphasizes, we believe it is necessary to underline that epistemological constructivism presents itself as "a general frame of reference that can serve as a foundation to different theories of learning or of knowledge development, and that can lead to various models of educational intervention." (p. 70) [TRANSLATION]

References

- Allal, L. (1988). Vers un élargissement de la pédagogie de maîtrise : processus de régulation interactive, rétroactive et proactive. In M. Huberman (ed.), *Assurer la réussite des apprentissages scolaires. Les propositions de la pédagogie de maîtrise*, (pp. 86–126). Paris : Delachaux et Niestlé.
- Allen, J.D. (2000). *Teaching about multicultural and diversity issues from an humanistic perspective*. Lanham: Educational resources information center. (ERIC Reproduction service No. ED443791).
- Altet, M. (2002). Une démarche de recherche sur la pratique enseignante : l'analyse plurielle. *Revue française de pédagogie*, 138, pp. 85–93.
- Anadón, M. (2000). Quelques repères sociaux et épistémologiques de la recherche en éducation au Québec. In T. Karsenti and L. Savoie-Zajc (Eds.), *Introduction à la recherche en éducation*, (pp. 15–32). Sherbrooke : Éditions du CRP.
- Astolfi, J.-P. (1998). *La pédagogie différenciée ou, mieux : la différenciation de la différenciation!* On line: www.ac-creteil.fr/maths/modulo/M9/pedaM9.html (viewed in August 2005).
- Bloom, B.S. (1979). *Caractéristiques individuelles et apprentissages scolaires*. Paris : Nathan.

- Bourdieu, P. (1966). L'école conservatrice. L'inégalité sociale devant l'école et devant la culture. *Revue française de sociologie*, 1, 325–347.
- Bourdieu, P. (1980). *Le sens pratique*. Paris : Les Éditions de Minuit.
- Bressoux, P. (2002). Contribution à l'analyse de l'effet-maître et des pratiques de classe. In J. Fijalkow and T. Nault (Eds.), *La gestion de classe*, (pp.199–214). Bruxelles : De Boeck Université.
- Brimijoin, K. (2002). *Expertise in differentiation: a preservice and inservice teacher make their way*. Unpublished doctoral thesis, University of Virginia, Charlottesville.
- Caron, J. (2003). *Apprivoiser les différences : guide sur la différenciation des apprentissages et la gestion des cycles*. Montréal : Les éditions de la Chenelière.
- Charlot, B. (1997). *Du rapport au savoir. Éléments pour une théorie*. Paris : Anthropos.
- Chevrier, J., Fortin, G., Leblanc, R. and Théberge, M. (2000). La construction du style d'apprentissage. *Éducation et francophonie*, 28(1). Online: <http://www.acelf.ca/c/revue/revuehtml/28-1/03-chevrier.html> (Viewed in August 2005).
- Commission des programmes d'études, Gouvernement du Québec. (2002). *Pour des élèves différents, des programmes motivants : avis au ministre de l'éducation sur les programmes différenciés et les programmes à option au cycle de diversification du secondaire*. Québec.
- Conover, L. A. (2001). *Effects of the school environment on teachers' responses to student differences and to change initiatives*. Unpublished doctoral thesis, University of Virginia, Charlottesville.
- Conseil supérieur de l'éducation, Gouvernement du Québec (2002). *L'organisation du primaire en cycles d'apprentissage : une mise en œuvre à soutenir*. Sainte-Foy, Québec.
- Corno, L. and Snow, R. E. (1986). Adapting teaching to individual differences among learners. In American Educational Research Association (Eds.), *Handbook of research on teaching*, 3rd edition, (pp.605–629). New York: Merlin C. Wittrock.
- Curry, L. (1990). A critique of the research on learning styles. *Educational Leadership*, 48(2), 50–55.
- de Vecchi, G. (2000). *Aider les élèves à apprendre*. Paris : Hachette Éducation.
- Ducette, J.P., Sewell, T.E. and Poliner Shapiro, J. (1996). Diversity in education: Problems and possibilities. In F.B. Murray (Ed.), *The teacher educator's handbook*, (pp. 323–381). San Francisco: Jossey-Bass.
- Dunn, R., Beaudry, J. S., and Klavas, A. (1989). Survey of research on learning styles. *Educational Leadership*, 46(6), 50–58.
- Éco, H. (1993). Entretien avec Humberto Eco. *Le courrier de l'UNESCO*, 46(5), 4–8.
- Fleming, L. C. and Baker, P.H. (2002). *Differentiating in the classroom: a study of student teachers*. Lanham: Educational resources information center. (ERIC Reproduction Service No. ED479480).
- Fourez, G. (1997). Qu'entend par « îlot de rationalité » ? et par « îlot interdisciplinaire de rationalité » ?, *Aster*, 25, 217–225.
- Galichet, F. (2001). Quelle éducation à la citoyenneté dans une société défective ? In M. Pagé, F. Ouellet and L. Cortesao (Eds.), *L'éducation à la citoyenneté*, (pp. 27–39). Sherbrooke : Éditions du CRP.
- Gardner, H. (1996). *Les intelligences multiples : Pour changer l'école : la prise en compte des différentes formes d'intelligence*. Paris : Retz.

- Gillig, J.-M. (1999). *Les pédagogies différenciées: origine, actualité, perspectives*. Bruxelles : De Boeck Université.
- Grangeat, M. (1999). Processus cognitifs et différenciation pédagogique. In C. Depover and B. Noël (Eds.), *L'évaluation des compétences et des processus cognitifs*, (pp. 115–127). Paris: DeBoeck Université.
- Grant, C. A. and Secada, W. G. (1990). Preparing teachers for diversity. In W.R. Houston, M. Haberman, and J. Sikula (Eds.), *Handbook of research on teacher education: A project of the Association of Teacher Educators*, (pp. 403–422). New York: McMillan Publishing Company.
- Groupe de travail sur la réforme du curriculum, Gouvernement du Québec. (1997). *Réaffirmer l'école: Prendre le virage du succès*. Sainte-Foy, Québec.
- Groupe français d'éducation nouvelle, (1977). *Réussir à l'école. « Pédagogie de soutien » ou soutien de la pédagogie?* Paris : Éditions sociales.
- Groupe français d'éducation nouvelle (1996). *Construire ses savoirs, construire sa citoyenneté : de l'école à la cité*. Lyon : Chronique sociale.
- Hertzog, N.B. (1998). Open-ended activities : differentiation through learner responses. *Gifted Child Quarterly*, 42(4), 212–227.
- Huberman, M. (dir.) (1988). *Assurer la réussite des apprentissages scolaires. Les propositions de la pédagogie de maîtrise*. Paris : Delachaux et Niestlé.
- Jalil Akkari, A. and Gohard-Radenkovic, A. (2002). Vers une nouvelle culture pédagogique dans les classes multiculturelles : les préalables nécessaires. *Revue des sciences de l'éducation*, 28(1), 147–170.
- Jonnaert, P. and Vander Borght, C. (1999). *Créer des conditions d'apprentissage : un cadre de référence socioconstructiviste pour une formation didactique des enseignants*. Bruxelles : De Boeck Université.
- Lebaume, J. (2002). L'enseignement régulier de la technologie dans l'hétérogénéité des acteurs et des contextes. *Aster*, 35, 65–83.
- Lebaume, J. and Coquidé, M. (Eds.) (2002). Hétérogénéité—Différenciation : recherches et questions. *Aster*, 35, 3–15.
- Legendre, M.-F. (2004). Approches constructivistes et nouvelles orientations curriculaires : D'un curriculum fondé sur l'approche par objectifs à un curriculum axé sur le développement de compétences. In P. Jonnaert, and D. Masciotra (Eds.), *Constructivisme : choix contemporains, Hommage à Ernst Von Glasersfeld*, (pp. 51–91). Ste-Foy : Presses de l'Université du Québec.
- Legrand, L. (1986). *La différenciation de la pédagogie*. Paris : Éditions du scarabée.
- Legrand, L. (1995). *Les différenciations de la pédagogie*. Paris : Presses Universitaires de France.
- Legrand, L. (1999). Le problème n'est plus pédagogique, mais politique In J.M. Gillig (Ed.), *Les pédagogies différenciées : Origine, actualité, perspectives*, (pp. 145–147). Bruxelles : De Boeck Université.
- Lesar, S., Benner, S., Habel, J. and Coleman, L. (1997). Preparing general education teachers for inclusive settings: a constructivist teacher education program. *Teacher Education and Special Education*, 20(3), 204–220.
- Lewis, A. (1992). From planning to practice. *British Journal of Special Education*, 19(1), 24–27.
- McGarvey, B., Marriott, S., Morgan, V. and Abbott, L. (1997). Planning for differen-

- tiation: the experience of teachers in Northern Ireland primary schools. *Journal of Curriculum Studies*, 29(3), 351–363.
- Meirieu, P. (1985). *L'école, mode d'emploi : des « méthodes actives » à la pédagogie différenciée*. Issy-les-Moulineaux : ESF éditeur.
- Meirieu, P. (1987). *Apprendre... oui, mais comment*. Paris : ESF Éditeur.
- Meirieu, P. (1996). *Itinéraire des pédagogies de groupe : apprendre en groupe—1*. Lyon : Chronique sociale.
- Melnick, S.L. and Zeichner, K.M. (1998). Teacher education's responsibility to address diversity issues: enhancing institutional capacity. *Theory into Practice*, 37(2), 88–95.
- Ministère de l'éducation, Gouvernement du Québec. (2001). *Programme de formation de l'école québécoise, enseignement préscolaire/primaire, version approuvée*. Québec.
- Ministère de l'éducation, Gouvernement du Québec (2003a). *Les difficultés d'apprentissage à l'école : Cadre de référence pour guider l'intervention*. Québec : Direction de l'adaptation scolaire et des services complémentaires.
- Ministère de l'éducation, Gouvernement du Québec. (2003b). *Programme de formation de l'école québécoise : enseignement secondaire, premier cycle*. Québec.
- Olenchak, F.R. (2001). Lessons learned from gifted children about differentiation. *Teacher Educator*, 36(3), 185–198.
- Paillé, P. and Mucchielli, A. (2003). *L'analyse qualitative en sciences humaines et sociales*. Paris : Armand Colin.
- Paine, L. (1990). *Orientations towards diversity: what do prospective teachers bring?* (Report No. 89–9). East Lansing, MI: National Center for Research on Teacher Education. (ERIC Reproduction Service No. ED320903).
- Pépin, Y. (1994). Savoirs pratiques et savoirs scolaires : une représentation constructiviste de l'éducation. *Revue des sciences de l'éducation*, 20(1), 63–85.
- Perelman, C. (1970a). *Le Traité de l'argumentation*. Bruxelles : Institut de sociologie. Université de Bruxelles.
- Perelman, C. (1970b). *Le champ de l'argumentation*. Bruxelles : Presses Universitaires de Bruxelles.
- Perraud, M. (1997). *Les cycles et la différenciation pédagogique*. Paris : Armand Colin.
- Perrenoud, P. (1994). Échec scolaire: de la suppression du redoublement à la différenciation de l'enseignement, un long chemin. *Recherche en éducation : théorie et pratique*, 16/17, 3–23.
- Perrenoud, P. (1997a). *Pédagogie différenciée : Des intentions à l'action*. Issy-les-Moulineaux : ESF éditeur.
- Perrenoud, P. (1997b). Apprentissage de la citoyenneté... des bonnes intentions au curriculum caché : Former les professeurs, oui, mais à quoi? Online: http://www.unige.ch/fapse/SSE/teachers/perrenoud/php_main/php_1997/1997_07.html (Viewed in August 2005).
- Perrenoud, P. (2002). *Les cycles d'apprentissage, une autre organisation du travail pour combattre l'échec scolaire*. Sainte-Foy : Presses de l'Université du Québec.
- Pratt, D. (1998). *Five perspectives on teaching in adult and higher education*. Malabar, Florida: Krieger Publishing Company.
- Prud'homme, L. (2004). La différenciation pédagogique dans le modèle de l'ensei-

- nement stratégique. In A. Presseau (Ed.), *Intégrer l'enseignement stratégique dans sa classe*, (pp. 185–213). Montréal: Chenelière/McGraw Hill.
- Rieben, L. (2000). À quelles conditions la notion de style d'apprentissage peut-elle devenir heuristique pour le champ de l'éducation? *Éducation et francophonie*, 28(1). Online: <http://www.acelf.ca/c/revue/revuehtml/28-1/08-rieben.html> <http://acelf.ca/c/revue/XXVIII/articles/08-rieben.html> (Viewed in August 2005).
- Rieben, L. (1988). Un point de vue constructiviste sur la pédagogie de maîtrise. In M. Huberman (Ed.), *Assurer la réussite des apprentissages scolaires. Les propositions de la pédagogie de maîtrise*, (pp. 127–154). Paris : Delachaux et Niestlé.
- Rothenberg, J.J., McDermott, P.C. and Gormley, K. (1999). *Preparations and reflections: Teaching in a widening world*. Lanham: Educational resources information center. (ERIC Reproduction Service No. ED431718).
- Rumelhard, G. (2002). Différences, singularité et universalité. *Aster*, 35, 17–37.
- Sensevy, G., Turco, G., Stallaerts, M. and Le Tiec, M. (2002). Prise en compte de l'hétérogénéité : le travail de régulation du professeur—le cas de l'étude d'une fourmilière en découverte du monde au cycle 2. *Aster*, 35, 85–122.
- Simpson, M. and Ure, J. (1994). *Studies of differentiation practices in primary and secondary schools (Interchange report no 30)*. Edinburgh, Scotland: Scottish Council for Research in Education. (ERIC Reproduction Service No. ED380196).
- Snow, R. E. and Swanson, J. (1992). Instructional psychology: aptitude, adaptation, and assessment. *Annual Review Psychology*, 43, 583–626.
- Stradling, B. and Saunders, L. (1993). Differentiation in practice: responding to the needs of all pupils. *Educational Research*, 35(2), 127–137.
- Suchaut, B. (2002). Gérer la classe efficacement, liberté dans l'action ou contraintes extérieures? In J. Fijalkow and T. Nault (Eds.), *La gestion de classe*, (pp. 215–231). Bruxelles : De Boeck Université.
- Tomlinson, C.A. (1991). *Teacher and student sense-making about differentiation of instruction for gifted learners*. Unpublished doctoral thesis, University of Virginia.
- Tomlinson, C.A. (1999). *The differentiated classroom: responding to the needs of all learners*. Alexandria: ASCD.
- Tomlinson, C.A. (2004). *La classe différenciée*. Montréal : Chenelière/McGraw-Hill.
- Tomlinson, C.A., Callahan, C.M., Tomchin, E.M., Eiss, N., Imbeau, M. and Landrum, M. (1997). Becoming architects of communities of learning: Addressing academic diversity in contemporary classrooms. *Exceptional Children*, 63(2), 269–282.
- Tomlinson, C.A. and Demirsky Allan, S. (2000). *Leadership for differentiating schools and classrooms*. Alexandria: ASCD.
- Vygotsky, L.S. (1978). *Mind in society: the development of higher psychological processes*. Cambridge: Harvard University Press.
- Weston, P. (1992). A decade for differentiation. *British Journal of Special Education*, 19(1), 6–9.
- Windschitl, M. (2002). Framing constructivism in practice as the negotiation of dilemmas: an analysis of the conceptual, pedagogical, cultural, and political challenges facing teachers. *Review of Educational Research*, 72(2), 131–175.
- Zakhartchouk, J.-M. (2001). Pédagogie différenciée : Une indispensable clarification. *Les langues modernes*, 95(4), 32–37.

