



Planning and Implementing Collaborative and Differentiated Instruction in Middle School

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Abstract

The goal of this action-research-training project was to promote the success of secondary school students. Supported by a collaborative reflective process [1], middle school teachers developed their classroom portrait in order to plan and implement differentiated instruction which would respect learning paces while promoting interactions among students through collaborative pedagogical approaches [2]. Our objectives were to contribute to the professional development of teachers by fostering collaboration and the planning of teaching/learning situations in middle school [3]. An action research-training project was carried out [4]: 15 consultation and co-planning meetings were held over two school years. Twelve teachers, an academic advisor, a special education teacher, two researchers and a research assistant participated in these meetings. At the beginning and end of the school year, a semi-directed group interview was used to collect the participants' experience with differentiated instruction as well as the enablers and obstacles encountered in implementing it. Video clips of theoretical elements, supported by research knowledge and collective reflective exchanges, helped to support the implementation of teaching/learning situations. The verbatim of the interviews were analyzed thematically and revealed positive impacts on the professional development of the participants. Middle school teachers learned new teaching devices, implemented differentiated instruction, and enhanced collaboration among their students in the classroom. Our analyses also show that these differentiated and collaborative approaches contribute to the success of students with learning difficulties in middle school while promoting their academic engagement and motivation [5].

Keywords: Professional development, differentiated instruction, collaboration, middle school, special education

1. Introduction

In Quebec, school partners work together to help students succeed in instruction, socialization and qualification. Pedagogical differentiation is a key tool to promote student progress and success [6]. This method is particularly helpful for students enrolled in Work-Oriented Training Programs due to academic difficulties. These programs are therefore characterized by a high degree of heterogeneity [7] and students can progress at their own pace in each subject [8]. Teachers can create learning situations for the whole group but must adapt them so that each student develops the expected competencies. It is in this context that pedagogical differentiation can be particularly useful. However, not all teachers are comfortable implementing this approach.

Quebec School service centres must promote teachers' professional development to support them in implementing pedagogical differentiation. However, not all professional development methods are equivalent. For example, conferences and formal training are generally less effective than collaborative approaches [9]. The most effective approaches require regular and active teacher involvement and mobilize the collective dimension of professional development through structured collaborative groups and pedagogical support [10]. Participation in action-research-training projects is one of the mechanisms that promote changes in participants' practices and, by that very fact, their professional development [10]. Moreover, collaborative reflective activities are an important element of professional development and are expected of teachers in Quebec [11]. Hence, this paper aims to answer how teachers can implement pedagogical differentiation in middle school.



2. Conceptual Framework

2.1 Professional Development

Professional development can be defined as "a process of change, of transformation, through which teachers gradually improve their practice, master their work and feel comfortable in their practice" [12 p. 148]. Reflection is an essential element of professional development, which can be achieved through activities that mobilize internal (e.g., self-criticism) or external resources (e.g., participation in a symposium or discussion group), or a combination of both (e.g., co-development or guidance of a trainee) [13].

Participation in action research-training projects is a highly effective way for teachers to reflect on and update their professional practice [14]. These projects typically last several months, which allows participants to not only experiment with new practices but also to sustain them over time. As a result, these new practices are more likely to have a positive impact on student learning outcomes. If the new practice fails to produce observable results in any of the dimensions of student learning, it is essential to evaluate whether the practice is being implemented correctly or if it is indeed ineffective.

2.2 Pedagogical Differentiation

Researchers define pedagogical differentiation as "an approach characterized by the selection and intentional implementation of practices that take into account students' specificities and group dynamics, with the aim of contributing to their academic success" [9 p. 762]. This approach should be deployed in all teaching-learning situations by taking into account the diversity of students, their tastes, their preferences, their needs and their learning pace and without categorizing students.

In a recent study, secondary school teachers associated pedagogical differentiation with two main purposes: supporting learning and promoting student success [15]. When teachers define this concept in their own words, the vast majority mention considering students' characteristics and needs and responding to students' difficulties. The majority of teachers said they placed a very high or high degree of importance on pedagogical differentiation [15].

3. Objectives

This research-action-training project had two objectives: to support teachers in implementing pedagogical differentiation for students with learning difficulties, and to describe the impact of participation in a research-action-training project on their professional development. This paper covers this second objective.

4. Methodology

Twelve teachers, an academic advisor, a special education teacher, two researchers and a research assistant participated in 15 planning and reflection meetings over two years.

Each meeting started with a presentation of a differentiated or collaborative teaching-learning experience followed by discussions on that experience and feedback from the research team. The research team also presented short theoretical vignettes to conclude the meetings with reflective collective exchanges and co-planning of future pilots of differentiated teaching-learning situations.

Through these meetings, the team co-planned 9 teaching-learning situations that took into consideration the interests and strengths of students aged 15 and over, class groups, theoretical and practical content as well as the development of a general culture allowing them to be open to the world.



5. Results

5.1 Factors influencing professional development

To develop professionally, a person must apply what they have learned [10]. Three factors favouring application emerged from the interviews. First, it is necessary to try new knowledge in practice. Collaboration among participants made them want to try differentiated teaching-learning situations, such as a group exam. Second, the application of new knowledge requires courage, especially in difficult classroom situations like the participants face each day, working with students with adjustment or learning disabilities. In more difficult classroom situations, it takes courage to do things differently. Discussions about these situations led some participants to dare to try differentiated teaching-learning situations they would not have tried otherwise. Third, beyond courage, participants talked about perseverance in their implementation, especially when the activity did not go well for the first time.

Participants also raised issues that could be considered as barriers to professional development. For example, time required for professional development can be difficult to find for teachers who already have demanding workloads and limited budget can make it difficult for teachers to buy or create differentiated materials. Also, participants with little teaching experience said they needed to take ownership of the subject matter before they could implement differentiated activities.

5.2 Benefits to participants

In addition to mustering the courage to try new things in the classroom, participants reaped several benefits from participating in this action-research-training project. First, they broadened their conception of pedagogical differentiation, seeing it as possible in the presentation of activities, concepts, evaluations, and even in the role of each person in the classroom. In consequence, they changed their view of their role as a teacher. Instead of seeing themselves as the only leader of the group, they started to accept sharing their power with the group, making decisions together with the students.

At the end of the project, several participants mentioned asking themselves different questions when planning an activity. For example, could they start with a general culture element rather than trying to integrate one afterwards?

Lastly, the participants observed the direct impact of their application of their new knowledge. They reported that students were becoming more involved, motivated and successful. These concrete and positive results increased their sense of self-efficacy as teachers as well as impacting their well-being and increasing their pleasure in going to work.

6. Conclusion

This action-research-training project allowed for group discussion on differentiated activities, trial and error, without judgment and with a vision of sharing and collaboration rather than competition. These exchanges were more professionally enriching than certain theoretical training sessions, far from the classroom experience, in part because they were held regularly. As a result, the participants' self-efficacy was enhanced and they observed concrete and positive results in student success and motivation, increasing commitment to the classroom and to learning.

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