Dissertation 2263 mots

Since 2008, mainstreaming has been the approach of choice to support school success for children with learning or other disabilities. As a result, teachers must now contend with a more complex task, namely teaching a group of students that includes children with special needs. In order to support teachers, children are offered additional services such as speech-language pathology (Ministère de l'Éducation, du Loisir et du Sport, 2011). Consequently, teachers and speech-language pathologists work together towards a common goal: their students' success. A large number of scientific articles advocate interprofessional collaboration as a means to reach that goal (e.g. Flynn, 2010; Nippold, 2010). The few studies on the topic suggest that intervention in the classroom with the teacher can be as effective as traditional intervention where the child is pulled out of class, if not more (Cirrin, Schooling, Nelson, Diehl, Flynn, Staskowski, …, & Adamczyk, 2010).

First and foremost, since there are several definitions of collaboration, it is important to determine which components must be present in order to consider that the interprofessional interactions are collaborative. The main components are the following: 1) all the participants must have the same status/level of power; 2) they must share responsibilities; 3) they must share their knowledge with each other and pool their ideas (Beaumont, Lavoie, & Couture, 2010). When these components are present, it is implied that the members of the interprofessional team have to negotiate to reach a consensus (San Martín-Rodríguez, Beaulieu, D'Amour, & Ferrada-Videla, 2005). This kind of collaboration is uncommon between speech-language pathologists and teachers, usually due to a lack of time set aside for these meetings, a lack of available office space for these meetings and a lack of training regarding interprofessional collaboration (Beaumont, Lavoie, & Couture, 2010). This essay will present various ways to increase collaboration between the members of these two professions and will be based on two evidence-based intervention techniques that advocate very different levels of collaboration.

This first treatment method was studied by Ritter and Saxon (2010). At first glance, it is not a collaborative approach, since its implementation does not involve the teacher. Instead, the speech-language pathologist gives sessions alone to all the students in the classroom. These sessions occur twice per week for 20-25 minutes each over a period of 12 weeks. The goal of this intervention is to improve phonological awareness for first grade children and follows the approach introduced in *The sourcebook of phonological awareness, volume* II by Goldsworthy (2001). The teaching method in this approach is story telling. All the students participating in the study were at risk of reading development difficulties due to low socio-economic level, and 9% of the children had a language disorder. Before the intervention, there was no significant difference between the experimental group of 29 students and the control group of 30 students. After the intervention, students in the experimental group obtained a significantly higher score than the control group in reading fluency. Students with a language disorder also improved their reading abilities following the intervention, although no statistical analysis could be performed due to the small number of participants. Results obtained show that speech-language pathology intervention given to the entire class is effective for all children at risk.

This intervention model is not in itself collaborative according to the criteria outlined previously. However, the framework in which it is used can be. For example, the speech-language pathologist and the teacher could have a discussion to determine if this type of intervention is appropriate for the class, or if a different approach should be taken. In fact, the teacher's knowledge of the strengths and weaknesses of his students, since he spends several hours a day with them, can guide the work of the speech-language pathologist and maximise the positive outcomes of the intervention. The teacher could have observed that this particular group of students had more difficulty with basic concepts. In such a case, the speech-language pathologist's intervention would be more useful for the majority of students if it targeted that subject. Similarly, the timing of the intervention during the semester could be chosen in a collaborative manner, according to the order in which the teacher is presenting curriculum objectives. This spirit of collaboration can also be used when a traditional intervention model is used, if the therapy goals are chosen with the teacher in order to take into account curriculum requirements and life in the classroom.

This type of intervention in which the teacher does not play an active role can also serve as a training opportunity for the teacher. When the speech-language pathologist leads the intervention, he provides modeling for the teacher, who can observe and learn the language stimulation techniques used. For example, according to Sickman's study (2007), teachers benefit from observing an intervention on pre-literacy skills given by the speech-language pathologist. In fact, after observing the session, teachers had made long-lasting changes to their use of language enrichment strategies during reading activities. In collaborating with the teacher, it could have been decided that intervention by the speech-language pathologist in the classroom would be preferable to formal teaching methods. Also in the spirit of collaboration, it could be just as useful for the speech-language pathologist to observe the teacher in his classroom in order to understand the specific challenges experienced by the teacher, who has to accommodate the various needs of his students in addition to objectives other than language learning.

At the other end of the collaboration spectrum, there are interventions requiring very rich exchanges between the speech-language pathologist and the teacher. This type of intervention has not been significantly studied, although results obtained by Throneburg, Calvert, Sturn, Paramboukas and Paul (2000) with regard to vocabulary learning are promising. The model proposed in this study is implemented in five parts. The first is a preliminary meeting between the speech-language pathologist and the teacher, with a goal to establish an outline of the interventions that will be given during the semester. The second is a daily 40-minute meeting between the speech-language pathologist and the teacher to plan the week's activities, discuss the students' goals and exchange knowledge and material. The third part is the 40-minute intervention sessions presented each week by the speech-language pathologist and the teacher as well as two students in speech-language pathology. These sessions are initially co-lead by the four adults, who speak to the entire group to introduce the key words of the week. Then, an activity involving the chosen key words is performed with the entire group or in sub-groups (one adult per sub-group). The fourth part is the work accomplished during the rest of the week by the teacher, who continues to highlight the key words. The fifth part is 15-minute individual or small group intervention sessions with the children who receive speech-language pathology services. These sessions are used by the speech-language pathologist to reintroduce the key words, work on other

therapy goals and document the child's progress.

This collaborative approach was compared to two other less collaborative approaches as control groups. The first control group received traditional intervention, where the child is pulled out from the classroom to receive individual or small group intervention. During this time, the rest of the control group received their usual teaching. The second control group was similar to the collaborative intervention in terms of implementation, except that the teacher was not involved during activity planning and was not in the classroom during intervention. At the pre-test level, the three groups of children who qualified for speech-language pathology services were not significantly different, nor were the three groups of children who did not qualify for speech-language pathology services. Interventions were provided for 12 weeks to 177 children (including 32 who qualified for speech-language services) divided amongst 12 kindergarten, first, second and third grade classes. Materials, objectives and total intervention time by the speech-language pathologist were similar for all three models.

Results showed that children receiving speech-language pathology services had an increase in vocabulary that was significantly higher when they had received intervention through collaboration between the speech-language pathologist and the teacher. Results obtained for the other two approaches were similar. For the children who did not qualify for services, both approaches involving intervention by the speech-language pathologist were not statistically different from one another, despite higher gains with the collaborative approach. In both cases, vocabulary gains were higher than those obtained through the traditional approach. These results show the positive effects that the speech-language pathologist can have on all the students, and that collaboration with the teacher has a particularly positive impact on the scores of children with a language disorder.

This type of highly collaborative approach has also been used by Bland and Prelock (1996), who compared language gains made by 14 students with language disorders. These students had been matched according to their scores on a language test, and half of them received collaborative intervention, while the other half received traditional intervention. The proposed approach is very similar to the one advanced by Throneburg et al. (2000), with an additional preliminary step. In this step, teams consisting of the speech-language pathologist, the teacher and the speech-language pathology student attended seven two-hour training sessions on various themes, including transdisciplinarity, collaboration and communication. Intervention sessions occurred once a week for 30 to 45 minutes over a period of three years. Two progress assessments were performed each year. No difference was noted between the two models for the first two years. However, at the end of the third year, students who had received collaborative intervention had a larger number of complete and intelligible sentences in their spontaneous speech. This shows that a collaborative approach can impact children's spontaneous language more quickly, but that it can take some time before this improvement is observed.

These studies by Throneburg et al. (2000) and Bland & Prelock (1996) show that collaboration between the teacher and the speech-language pathologist has a positive impact for children who qualify for speech-language pathology services, as well as for the other children in their class. However, it must be noted that this approach also requires the most time from both professionals, which means that the

school's management has to agree to relieve the teacher of his duties during that time (McCartney, Ellis, Boyle, Turnbull, & Kerr, 2010; Nippold, 2011; Throneburg, Calvert, Sturn, Paramboukas, & Paul, 2000). However, Prelock, Miller and Reed (1995), who describe in detail the implementation of the collaborative intervention proposed by Bland & Prelock (1996), do specify that daily preparation time greatly decreases during the second and third years of collaboration. As a result, if the preparation time was initially set out to take 30 minutes per week, after a while, interprofessional teams could prepare two or three weeks of intervention in a single meeting.

The intensity of intervention is also important to consider when determining the efficacy of an approach. For children with a language disorder, less intensive therapy gives little or no results, whether it is performed by the speech-language pathologist (Boyle, McCartney, O'Hare, & Forbes, 2007) or by a teacher with the assistance of a speech-language pathologist acting as consultant (McCartney, Boyle, Ellis, Bannatyne, & Turnbull, 2011). An intervention model with collaboration between the speech-language pathologist and the teacher would certainly maximize the intensity of the intervention. For example, if goals are selected collaboratively and take into account the teacher's opportunities to target those goals in his regular teaching activities, it becomes easier to increase the intensity of the intervention provided by the teacher. The same goal could be targeted jointly by the speech-language pathologist and the teacher when working with the whole class, and could be addressed by the speech-language pathologist during traditional therapy. It remains to be seen whether it would still be advantageous to use a close collaboration approach as suggested by Throneburg et al. (2000) if the collaboration was implemented in this parallel and simultaneous manner.

Interprofessional collaboration between the speech-language pathologist and the teacher, which can occur to various degrees, should be advocated considering the positive outcomes that result from it. However, many difficulties can arise during collaboration, including a lack of clarity on the role of each member of the team, and the need to recognize the knowledge and contributions of each member (Beaumont et al., 2010; Kvarnström, 2008). Currently, training on interprofessional collaboration is mostly given to members of the same faculty (e.g. Rvachew, Porter, & Paul, 2007). This is not useful for a teacher and speech-language pathologist collaboration, since these professionals are members of the faculties of education and medicine, respectively. Finally, as mentioned above, changes must be made to the way schools are organized in order to promote interprofessional collaboration. For example, teachers must be allowed time during work hours to attend team meetings. Additionally, in order to maximise the team's efficiency, it is preferable that the team's membership remain stable. This can be difficult to achieve according to the way schools are currently organized, namely the way teachers choose their positions and the way speech-language pathology services are provided to the schools.