A special education teacher participated in a co-teaching team with a Year 6 classroom teacher as part of a larger research project on collaborative practice involving six teams in three primary schools. She reflected on designing a science unit of work and teaming with the regular educator and on co-implementing the unit by parallel teaching. She also completed two extra activities for an independent study for her master of education. Her ongoing reflective log of this educational process contained her thoughts and feelings about external events through the project and her internal responses to those events. She also considered the effects of her co-teaching experiences on her beliefs and practices as a special educator. Specifically, she sorted teacher belief statements (Rimm-Kaufman, 2003) before and after co-teaching this unit of work. Her personal account identified key aspects of the collaborative process and revealed changes in her pattern of belief and practice.

Inclusive practice
Inclusion of students with disabilities in regular classrooms has become a common occurrence in Australian schools (Foreman, 2005). How inclusion is defined and implemented, however, has varied greatly throughout the states and territories and across different educational systems. Inclusion typically has meant that students with disabilities have become members of general education classrooms at local community schools (Halverson & Neary, 2001). This schooling arrangement has required increasing consultation and collaboration among special and general educators (Spedding, 2005; Wood, 1998).

Benefits of co-teaching
Co-teaching has been used occasionally to facilitate consultation and collaboration among staff in some inclusive settings in Australia and elsewhere (Beamish, Bryer, & Davies, 2006; Thousand, Nevin, & Villa, 2006). Co-teaching has been defined as "the collaboration between general and special education teachers for all of the teaching responsibilities of all students assigned to a classroom" (Vaughn, Schumm, & Auguelles, 1997, p. 41). Studies in the United States of America (USA) have repeatedly claimed benefits for students with disabilities who receive co-taught instruction alongside their regular peers. Skills taught in the regular classroom have been more readily generalised across the curriculum. Learning experiences, moreover, have been less fragmented compared to those embedded in pull-out sessions (Arguelles, Hughes, & Schumm, 2000;
Johnson & Skatoff, 1994). Furthermore, Salend (2001) reported that academic and social performance levels improved when students with disabilities consistently participated in regular classroom programs.

Co-teaching benefits have also been claimed for both special and general educators. Increased professional support, development, and motivation of teachers and better workplace conditions resulting from improved teacher-student ratios were among the primary benefits identified by Villa, Thousand, and Nevin (2004). The pooling of knowledge and skills in order to plan and provide instruction for all students has been the most commonly reported benefit. This sharing of expertise helped to improve existing instructional programs, classroom climate, and academic and social learning outcomes for all students (Friend & Bursuck, 2006; Peterson & Hittie, 2003). In this working partnership, special educators predominantly have shared expertise related to individualised instructional strategies, while regular educators have contributed in-depth knowledge of the core curriculum (Austin, 2001; Rice & Zigmond, 2000). A recurrent comment made by regular and special educators alike, however, has been that the regular educator does more than the visiting special education partner in the inclusive classroom.

A number of factors have been found to influence the effectiveness of co-teaching. Major facilitators were adequate time to plan, effective communication between co-teaching partners, shared vision of teaching and learning, and administrative support (Gately & Gately, 2001; Langerock, 2000; Mastropieri, Scrugg, Graetz, & Norland, 2005; Reinhiller, 1996). Research outcomes from the approximately 30 publications of mainly American origin, however, have been characterised as indicative rather than substantive (Thousand et al., 2006). Austin (2001) reported that many of the recommended practices and school-based supports were not as effective as anticipated. Although co-teaching has become an increasingly popular strategy among administrators and teachers to accommodate the diverse range of learners in regular classrooms, many teachers have reported a lack of knowledge and skills to use the strategy effectively (Vaughn, Schumm, & Brick, 1998).

The challenges and rewards associated with co-teaching in the Australian context have been largely unexplored. Rice and Zigmond (2000) interviewed secondary teachers in southeast Queensland and southwestern Pennsylvania about their beliefs about co-teaching. Teachers reported perceived benefits in their changing roles as teaching partners and their changing responsibilities for all students. Weiner and Murawski (2005) observed similar evidence of a changed emphasis in inclusive approaches on "our" students rather than "yours" and "mine." Teachers in both school systems reported six similar themes, with two of particular concern for special educators (i.e., parity of teaching status in a co-teaching partnership and capacity to make a unique and substantive contribution in the classroom).

The unit of work has been one focus for joint instruction considered likely to improve access to the core curriculum for students with disabilities. For example, collaborative planning has involved co-design of a unit and the shared coordination of IEP meetings, and collaborative implementation has involved parallel teaching. Wehmeyer, Sands, Knowlton, and Kozleski (2002) defined a unit of work as "maps that teachers create to organise and plan for how they are going to support students to help
them learn and demonstrate their understanding of the content, skills, processes, and knowledge required to achieve grade-level and broader school outcomes” (p. 129). Wehmeyer et al. (2002) recommended the pyramid planning model of Schumm, Vaughn, and Harris (1997) for the delivery of a unit of authentic learning in core curriculum. Gately and Gately (2001) argued for a more systematic and integrated approach to co-teaching components across the educational process.

A partnership between a university-based inclusion research group with three primary schools in a Brisbane, Queensland educational district specifically investigated the emergence of co-teaching in a local primary school context. The appendix shows the methodologies of formative individual reflection, shared inquiry, and summative personal reflection employed in each phase of the educational process. All teachers reflected in writing about their practice in terms of the 5Rs framework (Bain, Ballantyne, Mills, & Lester, 2002) of describing, emotionally processing, and cognitively analysing events and situations (viz., co-teaching phases in this case). Six teams of special and general educators systematically reflected on their collaborative planning, implementation, and evaluation of a unit of work. Each team worked on a unit of work relevant to curriculum demands within their respective school, classroom, and year-level contexts, and all teachers involved in the project engaged in ongoing reflections. Data gathered across all co-teachers at group project meetings showed reflective changes through the educational process from design to evaluation of the unit (Beamish et al., 2006). The project also suggested an unexpected impact of co-teaching extending to a wider range of students (e.g., learning problems, gifted) and revealed spontaneous teacher intentions to extend and broaden their co-teaching activities.

Aims

Within the larger aim of the present project, one special educator (first author) undertook to give a more personal perspective, in conjunction with an independent investigation in her part-time studies for her masters of education studies. Her specific aims was to explore her professional beliefs and practices in relation to her co-teaching experiences within a Year 6 classroom context. She aimed to document the composite pattern of her reflections about the co-teaching project, to measure changes in her specific beliefs and practices about teaching in a regular classroom setting before and after the project, and to obtain additional information about her understanding of this survey of classroom practice through pre-post reflections on completing the measure itself.

Method

The special educator examined her co-teaching experiences through the shared project methodologies of formative individual reflection prior to group meetings for each phase of the project, shared inquiry within each phase, and summative personal reflection at the end of a group meeting, which were employed for the whole project (see appendix). She also gathered data from two extra sources. First, she wrote a personal reflective log about the unit of work, in addition to the ongoing reflections being made by other teachers involved in this study. Second, she used the relatively new Teacher Belief Q-Sort (TBQ) measurement tool developed by Rimm-Kaufman (2003) to provide
measurable data on teacher beliefs and priorities that inform decisions about classroom practice.

**Participants and school context**

The special educator was a 4-year trained special education graduate and current part-time master of education student. She has had 7 years' experience teaching students with diverse needs across primary and secondary settings in Australia and England. She was attached to a Special Educational Unit (SEU), which housed a head of special educational services, four special education teachers, four full-time (equivalent hours) teacher aides, and approximately 44 students in a building located in an primary school in an outer suburb of the state capital. Her co-teaching partner was a Griffith University primary education graduate with 7 years experience teaching Years 6 and 7 classes (i.e., 11- and 12-year-olds) at the same school in Queensland. For these teachers, co-teaching involved the design, teaming, and implementation of a science unit for Year 6 students across a 10-week period. The unit required all students to investigate a chosen scientific topic, to write a lesson plan, and to teach other students in the class about their topic.

Class membership included students with intellectual impairment and learning difficulties, students from non-English speaking backgrounds, and students who were high achievers. The classroom practice has included all students throughout the day. That is, all students started the day in the classroom, and three students were withdrawn for some individualised programming (e.g., lifeskills instruction). These three students with intellectual impairment included one student with significant disabilities and two students who required substantial modifications to the curriculum. They were withdrawn at scheduled times when other students were engaged in specialist lessons (e.g., Chinese language).

**Procedure**

Administrative support from the SEU head helped to resolve logistical problems for the special educator such as time to meet with the regular educator and adjustments to existing work schedules. The co-teaching partners agreed to work on a unit of work already outlined by the regular educator. This task was time-intensive and required open communication. The relationship involved mutual respect and a common desire to deliver a motivating and challenging unit of work for all students.

In working together to design this unit of work, the co-teaching partners brainstormed ideas, constructed lesson activities, and prepared assessment items. In this collaborative process, they shared beliefs about teaching and learning, negotiated roles, and discussed preferred teaching styles for delivery of the unit (Zigmond & Magiera, 2001). For this unit, the teachers started with station teaching to orient students to the unit over 2 weeks, to allow students to experience various science experiments, and to engage in scientific report writing skills. Then they moved into parallel teaching for the essential part of the unit after students chose a scientific investigation; the special educator worked on robotic programming for two one-and-a-half hour sessions per week, and the regular educator worked with the remaining groups of scientific topics throughout the week.

In the implementation phase, the special educator joined the Year 6 class two to three times a week. She worked with heterogeneous groups of students on a rotational
Informing practice; improving research

basis using a parallel teaching approach. For example, she guided the brainstorming of ideas, assisted in the researching of background material, and facilitated the designing of scientific presentations. Together, the co-teaching partners used formative and summative assessment to track student progress throughout the learning process. The partners also prepared a rubric (viz., a guide showing students exactly what to do to achieve a specific grade) that assisted students in a culminating activity whereby they presented their work to the entire class.

Throughout this collaborative process, the co-teaching partners discussed the effectiveness of the unit and made ongoing changes to lesson content, individual student expectations, and assessment requirements. These teachers also reflected on various elements of co-teaching such as the compatibility of personalities in the co-teaching relationship, ideas about what constitutes good teaching and learning, equitable workload, and future plans for co-teaching.

Data gathering and analysis

The 10-week educational process from design to implementation for this co-teaching team progressed faster than the more typical 12-week cycle experienced by other teams.

Log entries

The special educator documented eleven log entries across the planning and implementation phases of the unit of work. Although the undergraduate teacher education program had introduced the 5Rs framework (Bain et al., 2002) of teachers' reflection about their practice after she started teaching, the special educator had supervised undergraduate practicum involving this reflective process. Four components of the 5Rs framework used in the present study involved reporting descriptively; merging immediate reactions and longer-term associations to other emotionally based experiences in a combination of responding-and-relating components; reasoning about important aspects of a practice such as co-teaching in an event or situation; and reconstructing future practice in light of reflective analysis of the event. This framework assisted the special educator to systematically record her co-teaching experiences, focus on emotions and thoughts related to the collaborative process, and explore prospective changes to teaching practice.

Teacher Belief Q-Sort

The Teacher Belief Q-Sort (TBQ) was an innovative card sort task for "quantifying beliefs and priorities in three aspects of teachers' beliefs that have been viewed as prominent: 1) discipline and behaviour management practices, 2) teaching practices, and 3) beliefs about children" (Rimm-Kaufman, Storm, Sawyer, & Pianta, 2004, p. 3). For each of three statement areas (viz., behaviour management and teaching practices, and beliefs about children), there are 20 statements. That is, the special educator sorted 60 statements on individual cards.

Within each area, statement cards were sorted according to 5 anchor levels from A: Least characteristic of my approach or beliefs through to E: Very characteristic of my approach or beliefs. A forced-choice method of card sorting ensured that each anchor card can only have four statements allocated to it. This method was aimed to produce an unbiased result. The special educator completed the TBQ twice: (a) prior to commencement of
the project and (b) 10 weeks later at the end of the unit implementation phase.

On both occasions, the special educator also reflected on her immediate personal reactions to undertaking the TBQ card sort and its effectiveness as a feedback mechanism. She sat at a computer terminal and typed her thoughts and reactions to the TQB sorting process and its specific statements. Before her co-teaching experiences, she expressed concerns about the relevance of the statements about beliefs and practices that she had sorted. She felt that the TBQ statements related to general classroom practice (e.g., "greeting each student by name as they enter the class") and did not clearly relate to her role as a special education teacher. After her co-teaching experiences, the special educator discovered that the statements were more meaningful and that, as a co-teacher, she was more able to relate to these statements.

**Leximancer analysis of log and TBQ reflections.**

Both sets of textual data from the log and TBQ reflections were analysed using Leximancer 2.2 (Smith, 2005). This software package "generates a nonselective exploration of samples of text. Leximancer computes the frequency with which each term is used, after discarding text items of no research relevance (such as "a" and "the"), and then computes the distance between each of the terms via computations equivalent to nonparametric factor analytic or cluster analytic procedures" (Martschinke, Waugh, Beamish, & Davies, 2004, p. 264). Computations of high frequency words were displayed as a two-dimensional spatial representation of co-occurring concepts (i.e., clusters of related words), which can then be grouped by visible boundary circles into thematically linked clusters of concepts. Recommended guidelines for interpreting concept maps were applied (Smith & Humphreys, in press). From this visual display, specific themes in each of the special educator's reflections were identified.

**Results**

**Leximancer content analysis of log summary text**

Figure 1 displays a map of co-occurring concepts in thematic circles (i.e., themes) generated by combining all of the special educator's reflections from each phase of her co-teaching experiences. In this overview, the two dominant themes were clustered around the co-teaching partner ("Amber") and time for co-teaching. The co-teaching partner was clearly the central focus of reflections, with Amber as the largest concept and with other concepts rotated around its alignment to the vertical axis. The special educator most frequently wrote about interactions with her co-teacher and about planning the unit of work. Her reflections about the adjacent, slightly overlapping "time" theme featured issues of time for co-teaching activities, working together through the school term (four per school year), and beliefs about teaching students.

To a lesser extent, the special educator wrote about her own concerns about teaching in the regular classroom. Three minor, separate, but complementary clusters were focused on children rather than adults. In her minor satellite themes of "student", "students" and "group", she wrote as a special educator's about her (a) skills in relation to planning and teaching a general curriculum to the general class (student, lesson); (b) concerns about the involvement in co-taught lessons of the students (with disability...
for whom she continued to feel directly responsible; and (c) fears about teaching groups of students as opposed to individual students.

**TBQ changes in extreme ratings**
The method used to represent TBQ priorities and beliefs was summative. That is, the highest and lowest rated levels in each of the three TBQ areas (viz., classroom discipline and behaviour management practices, teaching priorities and classroom practices, and beliefs about children) were examined before and after her co-teaching experiences. Ratings in all areas were relatively stable for both data sets. Table 1 shows examples of the kinds of changes in belief statements in the three areas. For example, her most highly rated statement about discipline was that "Praise from me is an effective way to change students' behaviour". After co-teaching the unit of work, the special educator's positive rank in "Very characteristic of my approach or beliefs about discipline and behaviour management" changed from first statement in this ranking to third statement in this ranking. After co-teaching, the TBQ statement that became the first statement in this ranking was that "It is important to respect students' autonomy and expect them to act in a responsible manner."

![Fig. 1. Leximancer analysis of all text from co-teaching reflective log kept by the special educator.](image-url)
Figures 2 and 3 present the content-analysed maps of the special educator’s reflections about TBQ card sorting. The concept maps in Figures 2 and 3 told a particular "story." Interpretation of visual displays can be problematic without recourse to the Leximancer text browser and direct knowledge of the text. Although the amount of text generated by the special educator for these reflections was limited, direct inspection of her written text indicated that her response material was highly consistent with the visual representation and the apparent story that it revealed. The actual text did not contain themes contrary to this interpretation. Figure 2 displays analysed reflections about the whole TBQ across all three areas, because the special educator generated substantial amount of text about her initial exposure to TBQ. Figure 3, however, displays analysed reflections specific to the TBQ area of classroom teaching practice, which was the only area for which she wrote sufficient text to permit Leximancer analysis.

Figure 2 shows three core themes clustered along the horizontal axis before co-teaching with a dominant "inclusion" theme and separate and subsidiary "practices" and "statement" themes related to the TBQ. A minor "beliefs" theme showed a closer relationship to inclusion than to the TBQ statement thematic cluster. Before co-teaching, therefore, this concept map showed that the special educator’s focus was directly related to the inclusion of students with disabilities. This map mirrored her facilitative role in including students with disabilities in regular classrooms. "My approach to completing this task [TBQ card sort] has been very much influenced by my current role…My answers would differ greatly if I were a teacher in a special school…or regular classroom."

The special educator’s SEU-based work context and traditional role as a special educator in a regular school accounted for the difficulties that she reported experiencing in her sorting of statement cards about some TBQ belief statements. The distance between belief and statement themes, seen along the horizontal axis in Figure 2, also reveals the lack of alignment between this practitioner’s personal beliefs and the TBQ belief statements.

In Figure 3, the merging of beliefs and statements within the major "statements" theme presented a clear contrast to the dislocation of belief, statement, and practice themes displayed in Figure 2. Changing beliefs featured in her text on the TBQ area of classroom practices and teaching priorities in the statements theme. Moreover, a "students" theme replaced her previous thematic focus on students with "disability." After co-teaching, moreover, practice-related concepts were represented in minor separate themes concerning "co-teaching" and "teacher" (co-teacher), consistent with a shift from a special educational focus to one of co-teaching. The special educator commented: "I found myself approaching the task from an entirely different perspective. This [TBQ card sort] was completed as a co-teacher rather than special educator", and "I have been able to draw on wider and more in-depth experiences to assist me in rating the statements."
Table 1
Examples of the changed rankings in a special educator's extreme TBQ statement selections in three areas that changed before and after co-teaching

<table>
<thead>
<tr>
<th>TBQ Area</th>
<th>Before Co-teaching</th>
<th>After Co-teaching</th>
</tr>
</thead>
<tbody>
<tr>
<td>Least characteristic of my approach or beliefs about discipline and behaviour management</td>
<td>1.6: Monitoring students can prevent problematic situations.</td>
<td>1.12: It is important to respect students' autonomy and expect them to act in a responsible manner.</td>
</tr>
<tr>
<td>Moved down two levels after co-teaching</td>
<td>Moved up one level after co-teaching</td>
<td></td>
</tr>
<tr>
<td>Very characteristic of my approach or beliefs about discipline and behaviour management</td>
<td>1.15: Praise from me is an effective way to change students' behaviour.</td>
<td>1.17: If I treat students with respect, kindness, and concern, there are less behaviour problems.</td>
</tr>
<tr>
<td>Moved down one level</td>
<td>Moved up one level</td>
<td></td>
</tr>
<tr>
<td>Least essential practices or characteristics of my teaching</td>
<td>2.19: Using a theme-based approach to instruction.</td>
<td>2.15: Using work sheet.</td>
</tr>
<tr>
<td>Moved up one level</td>
<td>Moved down one level</td>
<td></td>
</tr>
<tr>
<td>Most essential practices or characteristics of my teaching</td>
<td>2.17: Encouraging students and giving feedback that focuses on the process of students' creations or thinking, not the outcomes or the solution.</td>
<td>2.16: Permitting students to choose from a variety of activities.</td>
</tr>
<tr>
<td>Moved down one level</td>
<td>Moved up one level</td>
<td></td>
</tr>
<tr>
<td>Least characteristic of my belief system</td>
<td>3.7: Most students respect teachers and authority.</td>
<td>3.2: Many of the students in my class try to get away with doing as little work as possible.</td>
</tr>
<tr>
<td>Moved up one level</td>
<td>Moved down one level</td>
<td></td>
</tr>
<tr>
<td>Most characteristic of my belief system</td>
<td>3.4: Students need to be met where they are in terms of ability.</td>
<td>3.17: Students learn best by being actively involved in lessons.</td>
</tr>
<tr>
<td>Moved down three levels</td>
<td>Moved up one level</td>
<td></td>
</tr>
</tbody>
</table>

*Italicised text indicates the presence and direction of changes in ratings for these statements across five anchor levels—most, very, somewhat, less, least—characteristic of my disciplinary approach, my teaching practice, and my belief system.
Figure 2.
Leximancer analysis of reflections for whole TBQ before co-teaching experiences.

Figure 3.
Leximancer analysis of reflections about TBQ teaching practice area after co-teaching experiences.
Discussion

The overall concept map of this special educator's experiences across the educational process in Figure 1 echoed co-teaching issues identified in the literature. These issues included sufficient time to plan, to discuss instruction, and to collaborate on the process (Langerock, 2000); voluntary choice in the co-teaching partnership (Reinhiller, 1996); and funding and support from administration (Cook & Friend, 1995; Mastopieri et al., 2005). Communication skills, unit planning time, working collaboratively, and being aware of the whole class influenced the dominant theme of the relationship between the co-teaching partners. The time theme was concerned with time for the partners to plan the unit and to implement it. The believe concept in the time theme referred to shared beliefs about effective instruction that facilitated a productive working relationship.

Before the special educator started co-teaching this science unit of work, she approached the card sort in terms of current practice and core role. Her current workplace responsibilities concerning the inclusion of three individual students with disabilities into a Year 6 classroom infused her card-sorting and subsequent reflection. Her most characteristic TBQ choices in the three areas involved praise (discipline), feedback (teacher priorities), and ability-sensitive instruction (child beliefs). A strong disability perspective also infused her strong focus on inclusion in Figure 2 reflections about the TBQ card sort. That is, she brought a clear professional stance about her role and responsibilities to the co-teaching project, which, in turn, affected her initial card sorting choices and her written responses about the meaningfulness of the process.

The special educator's perception of her role was somewhat changed after the co-teaching experience. She was confident in her ability to interpret the statements from a broader teaching perspective, enabling greater ease in the completion of the TBQ. The Figure 3 concept map illustrated the kind of changes in her thoughts and personal reactions after she participated, with a regular classroom teacher, in parallel teaching the science unit to a whole class of Year 6 students. The strong students theme revealed the special educator refocussing from an individual to a group perspective, in order to facilitate learning of all students. In particular, the clustering of students and tasks in the students theme indicated her co-teaching perspective on teacher practice. Moreover, she was able to accept the relevance of some TBQ practices that were previously irrelevant to her role as a special educator. The statements theme linked concepts that were previously mere satellites to the traditional role of a special educator represented in her core inclusion theme.

In this study, the use of the TBQ to quantify priorities and beliefs in these three aspects of classroom practice and belief was not sensitive enough to identify or track changes in one person over this period of time. Although the special educator showed slight changes in the way she sorted her priorities for discipline, behaviour management, and children, she considered that these changes were transient rather than significant. The addition of a reflection on the card sorting experience at the completion of each TBQ sort did assist in the interpretation and identification of changes in teaching practice. The concept mapping of her reflections highlighted changes in perspective that occurred through engagement in a co-teaching process, which the special educator considered were genuine changes in perspective from individual and small group
emphases of teaching practice to whole-of-class considerations.

Conclusion

The perspective of an individual special educator participating in a co-teaching study received close inspection. The special educator enthusiastically seized the opportunity to collaborate in everyday teaching roles, and her exposure to a broader range of teaching fostered a strongly positive view of co-teaching. It is noted that the regular educator was the major influence on unit design and held primary responsibility for classroom implementation and evaluation of the unit of work, consistent with the conclusions of previous studies. Even a small involvement in one session a couple of times a week, however, energised the working relationship, with the two teachers working towards a common goal for all students.

The reflective log allowed the special educator to process thoughts and actions, analysing them with reference to the literature. Through the log, the special educator was able to explore her role in the co-teaching arrangement and to consider her subsequent actions and decisions regarding future practice. These decisions included planning for (a) more teaching time in the regular classroom, (b) greater communication between teaching partners, and (c) more variety of specific co-teaching approaches (supportive teaching, parallel teaching, complementary teaching, team teaching). Her reflective focus on future practice (i.e., reconstruction) was geared to ensure that the working relationship moved from the "forming" to the "fermenting" stage of team teaching (Villa et al., 2004, p. 95).

The TBQ card sorting process required the special educator to think about and articulate her implicit beliefs. This TBQ experience made the special educator more aware of her perspective when teaching. In particular, she became aware of a shift in emphasis of her teaching priorities as a special educator in a primary school (viz., away from focused support for small groups of students with disabilities in the regular classroom and towards a broader engagement with large groups of diverse students with a variety of skills and needs). The opportunities that she had to work with gifted and talented students, students from non-English speaking backgrounds, students with learning difficulties, and students from a wide range of socioeconomic backgrounds were new and exciting and extended her role and her practice: She could view herself as "teacher" for the classroom. She considered that her co-teaching in the regular classroom contributed to student learning outcomes in several ways. Her collaboration with the regular classroom teacher provided a model of working together for the students; students were able to choose which teacher was most appropriate to provide guidance for specific tasks; and a comprehensive approach to gathering data on student performance and learning encouraged ongoing program modifications and instructional refinements.

The special educator enjoyed not only the social experience of co-teaching for the inclusion of a few students but also the challenging professional experience of classroom teaching for all students. However, this limited co-teaching experience of this special educator involved relatively few hours of co-teaching and three students with disabilities. Subsequently, she negotiated with school administration to increase her co-teaching time.
for the coming teaching year. In the next school year, however, she transferred to a special school, in which a co-teaching project was being initiated throughout the school. Therefore, several follow-up research projects can be anticipated. One aim in further action research is to explore the limits of staff-student ratios in co-teaching. The challenge is to maximise inclusion of students with disabilities without diminishing their learning outcomes and, at the same time, to establish a viable partnership that is more than team teaching between two regular educators. Moreover, how a co-teaching partnership affects student success and classroom operations should be explored from the perspective of the regular educator, who continues to play the larger part in co-teaching work. Furthermore, how co-teaching is implemented in a special school can be studied.

Acknowledgment
The contribution of the regular educator, Amber Schubert, to this co-teaching partnership, was essential. Her participation in the co-teaching project was also appreciated.

References


A Special Educator's Beliefs and Practice: Reflections on Co-teaching a Unit of Work


## Appendix

Structured design for four reflective questions over five action learning sessions, paired to examine phase changes of co-teaching

<table>
<thead>
<tr>
<th>SRs</th>
<th>Session 1 Baseline: Unit of Work</th>
<th>Session 1 Cont. Baseline: Collaboration</th>
<th>Session 2: Design</th>
<th>Session 3: Teaming</th>
<th>Session 4: Implementation</th>
<th>Session 5 Evaluation: Unit of Work</th>
<th>Session 5 Evaluation: Co-Teach Project</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>R</strong></td>
<td>1.1 Describe your current approach to units of work.</td>
<td>1.5 Describe how you currently collaborate with others in your units of work.</td>
<td>2.1. How are you co-designing?</td>
<td>3.1 Describe how you have teamed with your teaching partner(s) to co-design and co-implement this unit of work.</td>
<td>4.1 Describe how you implemented units of work.</td>
<td>5.1 Describe how you evaluated your unit of work.</td>
<td>5.5 How do you feel about this project?</td>
</tr>
<tr>
<td><strong>R</strong></td>
<td>1.2. How do you feel about your units of work?</td>
<td>1.6. How do you feel about working with others in your units of work?</td>
<td>2.2. How do you feel about co-designing units of work?</td>
<td>3.2 How do you feel about teaming with your teaching partner(s) on this unit of work?</td>
<td>4.2 How do you feel about the implementation of your units of work?</td>
<td>5.2. How effective do you feel your unit of work has been?</td>
<td>5.6. What did you consider are the strengths of the project?</td>
</tr>
<tr>
<td><strong>R</strong></td>
<td>1.3. In what way are your units of work effective?</td>
<td>1.7. In what ways does collaboration improve your units of work?</td>
<td>2.3. What are the strengths of this co-designed unit of work?</td>
<td>3.3 What are the benefits of the current teaming activity in light of other collaborative activity you routinely undertake?</td>
<td>4.3. What are the strengths of your implementation of the units of work?</td>
<td>5.3. At this point in time, what does co-teaching mean to you?</td>
<td>5.7. What did you consider are the weaknesses of the project?</td>
</tr>
<tr>
<td><strong>R</strong></td>
<td>1.4. How would you like to do your units of work differently?</td>
<td>1.8. How would you like to collaborate differently in relation to your units of work?</td>
<td>2.4. Next time, how would you co-design differently?</td>
<td>3.4 Next time, how would you team differently with your teaching partner(s) to co-design and co-implement a unit of work?</td>
<td>4.4. Next time, how would you implement your unit of work differently?</td>
<td>5.4. Next time, how would you co-teach a unit of work differently?</td>
<td>5.8. How would you prefer to be involved in a co-teaching project in the future?</td>
</tr>
<tr>
<td><strong>R</strong></td>
<td>1.5 How would you like to do your units of work differently?</td>
<td>1.9. How would you like to collaborate differently in relation to your units of work?</td>
<td>2.5. Next time, how would you co-design differently?</td>
<td>3.5 How would you team differently with your teaching partner(s) to co-design and co-implement a unit of work?</td>
<td>4.5 Next time, how would you implement your unit of work differently?</td>
<td>5.5 Next time, how would you co-teach a unit of work differently?</td>
<td>5.6. What did you consider are the weaknesses of the project?</td>
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<td>5.8. How would you prefer to be involved in a co-teaching project in the future?</td>
</tr>
</tbody>
</table>

*Collapsing emotional processing components simplified the “feel vs. think” progression of questions.*