
Purpose
The purpose of the article was to reanalyze the principle of partial participation and provide a review of issues related to curriculum development for students with severe and profound disabilities. It looks at four ways the notion of partial participation has been misunderstood and misused and it offers an explanation for the sources of error patterns. Additionally, it provides strategies for avoiding error patterns.

Type of Article
This article is a reanalysis and tutorial article in that it looks at the current issues pertaining to partial participation and then instructs individuals on how to apply the concept correctly.

Summary of Main Points

- Why we need partial participation.
  - Teachers and researchers have confirmed that students with severe and profound disabilities are able to learn. Since they are able to learn they should participate in public schooling.
  - A developmental approach to teaching students with disabilities has some shortcomings. First, the use of chronologically age inappropriate materials can negatively affect a student’s social image. Second, some skills are unattainable for students who have physical and sensory impairments.
  - A functional approach teaches skills that are useful or will be useful; however, using this approach does not narrow the teaching choices for teachers.
  - An ecological approach teaches activities and functional skills in the students’ natural environments. It teaches skills that will be used by the student and will be supported by the natural environment. This approach assumes that independence will be achieved, but this is not always the case.
  - Partial participation should be considered when a student is unable to acquire enough skills to participate independently, but is able to learn enough skills to partially participate. This approach can work for students with very severe cognitive and multiple disabilities. When deciding what to teach, this approach relies on behaviourally oriented instructional technology and the student’s current repertoire of skills.

- Patterns of error in using partial participation.
  - Correctly implementing the concept of partial participation can increase a student’s participation and learning in natural settings. Incorrect implementation of partial participation can lead to confusion for students, families, and teachers. There are four error patterns in the current use of partial participation.
    1. Passive participation. This is defined as a student merely being present in the natural community and/or school environment. The student observes others. This is problematic when it is the dominant form of participation in the student’s program.
    2. Myopic participation. Myopic participation results when teachers choose only one or just a few of the relevant perspectives (i.e., they fail to consider the full range of variables that should be included in curriculum planning and making program decisions) when deciding the student’s involvement in learning activities. Myopic participation does not take the student’s current and potential skills, preferences, long-term learning needs into consideration nor does it typically meet family priorities.
    3. Piecemeal participation. Piecemeal participation occurs when teachers use the notion of partial participation some of the time. There is a lack of coherence between in- and out-of-class instruction. This lack of coherence slows students understanding and competence in real, functional, meaningful activities.
4. **Missed participation.** Missed participation occurs when there is an over-emphasis on completing steps of an activity independently. A student may never be able to complete a whole activity independently and this over-emphasis limits student participation, restricts interactions, and prevents him/her from experiencing other learning opportunities.

**Sources of errors**
- Teachers have narrow teaching opportunities with students who are unavailable for learning.
- Students have limited behaviour repertoires.
- Teachers retreat to deficit remediation rather than functional activity-based outcomes.
- Partial participation is NOT meant to be used alone for deciding what to teach, to be used in alteration with development logic for deciding what to teach, or as a way of achieving social inclusion at the cost of instruction and growth.

**Avoiding errors in application of partial participation**
- Students with complex disabilities can be supported to participate actively in their communities in ways that helps others view them as contributing members. There are four strategies that might help teachers to accomplish this goal.

1. **Achieving active instead of passive partial participation.** Think about increasing opportunities for practicing current behaviour repertoire in natural settings. A goal of increasing behaviour repertoire may also be set. Physically supported active participation in real settings can increase a student’s physical condition and health as well as enhance social image.

2. **Avoiding myopic participation by attending to multiple perspectives.** Use family and community reference assessment strategies. Teach what will have the greatest impact on helping students be competent in their daily lives. This means focusing on the students’ abilities and activities rather than specific skills. Use data collection strategies that are formative, easy, and reflective of multiple outcomes and perspectives. Use simple forms to collect ongoing information to make necessary changes to programming to maximize students’ learning.

3. **Avoiding piecemeal participation by using information from multiple sources for ongoing curricular planning and program development.** It is recommended to merge competing perspectives (i.e., merging ecological/activity-based perspective with developmental, behavioural, adaptive, communicative, and biobehavioural perspectives). It is also recommended to determine what and where to teach by considering how the student’s life will change and by gathering information from the student, his/her family, his/her peers, and other community resources. Finally, the teacher needs to consider a variety of perspectives to determine how to teach. Ongoing planning and program improvement needs to happen throughout the school year. There should be an action plan and the teacher should be able to describe what the program is to accomplish and what things need to be worked on to attain curricular goals.

4. **Avoiding missed participation by enhancing image and achieving independence.** The student’s impairments and life style may require the constant presence of another person. When this is the case, the teacher should shift instructional choices to emphasize interdependence and image. A teacher can think through the following questions to avoid missed participation: a) Will another person be present for the activity? b) What abilities can the student practice in each component of the activity? c) What skills might develop to expand participation? d) How can the student’s image be maximized to feel and appear competent? e) How can the student’s cooperative and supportive relationships be expanded across similar settings and activities?

**Purpose and Type of Article**

The purpose of this research article was to extend current research on embedded instruction and peer-mediated instruction. The investigators studied the effects of using a training package to teach middle-school peer tutors to use embedded constant time delay procedures with students with significant cognitive disabilities in a general education setting. The study aimed to answer four questions. First, could peers be efficiently trained to use constant time delay and embedded instructional techniques? Second, could peers generalize the teaching behaviours to an untrained stimulus set? Third, would peer-tutor implementation result in skill acquisition by students with cognitive impairments? Last, would there be socially valid outcomes?

**Literature Review**

- Embedded instruction is a highly structured instructional strategy that can be used within typical classroom activities and routines. Instructional trials can be presented when naturally occurring opportunities arise rather than being presented in a mass trial format.
- The procedure for implementing constant time delay involves presenting an instructional cue and the target stimulus with a systematic insertion of a delay period (starting at 0 seconds then increasing to 4 or 5 seconds) then the delivery of a controlling prompt.
- The delay period is intended to give the student an opportunity to respond independently and to minimize the number of errors made.
- Embedded constant time delay instruction is effective in teaching a variety of skills to students with significant cognitive disabilities. It increases the amount of instruction received and the amount of participation in general education activities and routines.
- Research has demonstrated the efficacy of peer-delivered instruction in inclusive classrooms. It is effective and efficient for minimizing errors and promoting positive learning outcomes for students with significant cognitive delays. There are also high social validity measures.

**Method**

- **Participants.** The participants included three students with severe cognitive disabilities aged 13-15, two general education teachers with 13-16 years of teaching experience, and three peer tutors aged 14-15 without disabilities who have had little to no peer tutoring experience.
- **Setting.** Peer training took place during homeroom period. They also had ongoing feedback after training in the general education classroom during breaks and transitions. Implementation of the instructional strategies took place in the general education classroom. Probes on student acquisition of target skills took place in the special education classroom.
- **Instructional targets.** The special education teacher and the general education teachers selected targets that were from the general education curriculum but were consistent with the students’ IEP objectives.
- **Materials.** Two instructional stimuli were developed for each student’s instructional target: the peer tutors’ training set and the generalization set. A three-page manual was developed to train peer tutors.
- **Dependent Measures and Data Collection.** Peer tutors’ teaching behaviour was evaluated on a) selecting opportunities to embed instruction, b) providing an attentional cue, c) presenting the stimulus, d) presenting a task direction, e) providing an appropriate interval, f) providing a prompt, g) providing a consequence, and h) collecting data. Students with cognitive impairments were assessed on responses to trained and generalized stimulus sets. Social validity was measured through Likert-scale surveys and informal interviews with peer tutors and general education teachers at the end of the study.
- **Peer training.** The manuals were distributed and then individual training sessions took place to review the manual, observe the principal investigator model the strategies, and to provide opportunities for the peer tutor to model the strategies and receive corrective feedback.
• **Experimental Design.** The investigators used two parallel multiple-probe-across-participant designs to evaluate the effectiveness of the training package and the learning outcomes for students with cognitive disabilities. Implementation of experimental conditions was time lagged across peer tutors and students with cognitive impairments with whom they were working with.

• **Peer Tutors.** At baseline, there was no training and peer tutors were asked to teach targets to the student. When baseline stability was achieved peer training began. When training criteria was met, the peer tutors began to implement the strategies (with a lagged start time) with the students with cognitive delays in the general education classroom starting with a 0 second time delay then increasing to a 3 second time. The peer tutors’ acquisition and generalization of instructional techniques were assessed through the use of the two target skills sets.

• **Interobserver Agreement.** Reliability data was collected for both peer tutors’ instructional fidelity and for students performance.

**Results and Discussion**

• **Teaching behaviours.** Middle-school peer tutors can be trained quickly and efficiently to implement embedded, constant time delay instructional procedures with students with significant cognitive impairments with high fidelity. Peer tutors were able to generalize teaching behaviours to untrained stimulus sets. Peer tutors had difficulties selecting appropriate times to embed the constant time delay instruction. They usually implemented it after their own independent seatwork was completed. Peer tutors made errors in providing an attentional cue. Discrepancy among peer tutors’ reasons for misuse highlights the importance of selecting components of embedded instructional packages on the basis of individual support needs, learning characteristics of students, and the salient features of the targeted tasks. All peer tutors provided controlling prompts with high fidelity. All peer tutors made errors in providing consequences. Reinforcing for correct responses was usually forgotten; however, all provided appropriate error correction procedures. This may have inadvertently increased maintenance of the targeted skills. Data was collected with a high degree of fidelity.

• **Student performance during acquisition probes.** The use of instructional procedures by peer-tutors resulted in the acquisition of the targeted skills to 100% criterion by students with significant cognitive impairments. All students maintained targeted behaviour at high rates after meeting criterion.

• **Social validity.** Teachers and peer tutors were positive about the use, acceptability, and outcomes of the peer-delivered embedded constant time delay instructional procedures. They thought it increased access and participation in general education curriculum, that it did not disrupt the activity and routines or learning time of the students without disabilities, that it met students’ individual learning needs, and that the procedures were effective. It is important to ensure a variety of interactions (e.g., helper, classmate, and friend) between students with disabilities and students without disabilities.

• **Limitations.** There were several limitations to the study: a) there were a small number of participants in the study, b) only a small number of peer-tutors returned their forms, c) the demonstration of generalization of target skills was weak, and d) instruction focused on only one discrete set of skills.

• **Future research.** More research needs to be done in the following areas: a) peer tutor and parent willingness to participate, b) training to identify naturally occurring opportunities to deliver instruction, c) procedural guidelines for inter-trial intervals, d) relative efficacy of using peer tutors during skill acquisition and generalization, e) instructional procedures for teaching more complex behavioural chains, f) perceptions and practices of special education personnel when using peer-collected data, f) perceptions of peers about the use of instructional procedures in general education classes, and g) quantifying the positive and negative impact on peer tutors.

**Purpose**

The purpose of the article is to discuss issues pertaining to where educational services are provided for students who are severely handicapped. It discusses how location can affect the range, quality, and substantive nature of educational services provided.

**Positional Paper**

The authors of the paper offer the position that students, their families, and the public benefit more from students with severe handicaps attending special education classes in chronological age appropriate regular schools that are close to their homes than from being bussed to segregated special education schools. They believe that the goal of educational programs for students with severe handicaps should be to have maximal involvement in a variety of environments that contain individuals with and without handicaps.

**Issues Discussed**

Potential benefits of students with severe handicaps attending a class based in a chronological age appropriate regular school include:

- **Accessibility**
  - Regular schools are geographically closer to students’ homes. Being geographically closer provides more opportunities for students to have developmentally sound environments, activities, and services throughout the day.
    - a) Direct and systematic instruction in school and non-school environments can occur.
    - b) Occupational, physical, and speech and language therapy can occur in daily life.
    - c) Peer relationships can be built, as friendships are generally cultivated in schools and neighbourhoods.
  - Having to bus long distances deprives students of access to extra-curricular activities and also places an extra burden on parents when they have to transport their child (e.g., misses the bus)

- **Maximal participation**
  - Students with severe handicaps should receive as many minutes per day in constructive and clearly habilitative environments and activities. One-on-one instruction helps to minimize the wait time and peers without handicaps can help to provide support.
  - Students with severe handicaps exposed to different stimulation develop skills to tolerate/cope in a variety of environments.

- **Relative cost**
  - Having students attend regular schools can reduce costs in transportation and administrator fees. Many schools are running under capacity and filling these schools would reduce administrative costs such as cleaning, heating, and lighting.
  - Students who graduate from regular schools are more likely to be able to function in post-school environments, thereby reducing the expense of operating institutions, sheltered workshops, and activity centres.

- **Psychological and social effect of segregation on personnel**
Being in regular schools helps staff determine what is socially appropriate for chronological age. Staff members who work in segregated schools become desensitized to maladaptive behaviour over time. They tend to ignore, reinforce, tolerate, and even justify this behaviour.

Dealing with maladaptive behaviour on a regular basis can be depressing, overwhelming, and can eventually wear staff down. To compensate for this stress, segregated schools tend to honour staff at the cost of meeting students’ needs.

- Related services
  - Parents and service providers are more likely to visit regular schools. This facilitates the home-school skill carry-over and provides more opportunities to practice functional skills.
  - The proximity of the school reduces the possibility of therapeutic gains being neutralized by sitting on the bus for long periods of time.

- Benefits to students/individuals without severe handicaps
  - Teaches service providers necessary skills to function effectively with and for individuals with severe handicaps.
  - It provides future parents with preparatory experiences.
  - Develops perspective, individuals learn to appreciate and value individual differences.

- Benefits to students with severe handicaps
  - Attending regular schools helps to prepare students with severe handicaps to function in society.
    - It increases their opportunities to practice functioning in and ever-changing environment to become more aware of chronological age appropriate fashion, music, language, and gestures (proximity).
    - It enables them to generalize skills, when to accept assistance and to express a desire to be independent (helping service).
    - It teaches individuals how to provide services to people with handicaps and people with handicaps learn how to use services (service interaction).
    - It facilitates the development of interactions where both individuals, with and without handicaps, are benefiting from relationships (reciprocal).

- Suggestions on how to segregate students with severe handicaps in a regular school
  - Some parents are satisfied to have their child segregated from students without handicaps and in some places a segregated school is the only educational option. This is inherently unfair to parents who want their child with severe handicaps to interact with the general population. A regular school can meet the needs of both parents, whereas a segregated school cannot.
  - Some suggestions include: bussing to school, entering school after other students, having a separate wing of school with an opaque door, having a different recess time, having room service from the cafeteria, using a private washroom, scheduling when to use school facilities (e.g., gym and music room), and finishing the day half an hour earlier.