Peer – tutoring and cooperative learning in PE - a collaborative project

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Government’s support for special needs education.

Overall aim
To help pupils fulfil their educational goals.
Why – this project?
Support for Students with Disabilities

- Traditional support by the educational support personnel:
  - teacher assistants
  - personal assistants

However...

- Support personnel can be organized in different ways
- Support personnel might not be available
- Presence of adults can be a physical barrier inhibiting interactions between students with and without disabilities.

Therefore ...

- We want to translate and adapt the model / research done in the U.S. by Aija Klavina (2008) which showed such good results. We want to examine, document and evaluate this study in Sweden and test it in a Swedish environment.
The purpose of the project is to increase the possibility of participation in physical education for elementary school children with disabilities.

Research sites: - two elementary schools located in two cities in Sweden:
- Örebro
- Halmstad
Settings and Participants

- Three elementary schools
- Four elementary–age pupils with physical disabilities
- Ca 40 GE students (peer tutors)
- Educational personnel: three GPE teachers, two APE teachers, two teacher assistants, two leisure time teachers.
- Attendance: Both inclusive and special education classrooms outside PE.
- PE content: Follow the national curriculum for Physical education and health:
  - Play, Fitness (Dance, Music & Movement etc.), team and individual physical activities, outdoor activity...
The process...

- Information
- Agreements
- Interviews (teachers, principals - about expectations)
- Baseline (film and observations)
- Peer-tutor education (3 x 30/40 min)
- Intervention (film and observations)
- Interviews (pupils, teachers, assistants, principals)
- process the material
- write research papers and guidance
Co-operative Learning:
Togetherness and Diversity (Ulf Janson, 2001)

- **Togetherness** is seen as a function of shared activity, not just proximity in physical space
  - interrelated contexts: the physical, social and non-verbal

- **Horizontality vs. Verticality**
  - Equal participation – *horizontal*
  - Differences in perceptual, communicative or cognitive respects – *vertical*
Multiple-Component Interaction Behaviors

- Instructional behaviors
- Physical behaviors
- Social behaviors

Objective  
Participation  
Subjective

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Variables

• *Independent variable* - peer tutoring intervention incorporating teaching instructions, physical assistance, and feedback.

• *Dependent variables* - the percentage of intervals of physical, instructional and social interactions between students with and without disabilities in GPE measured across two instructional conditions.

• Additional measure considered the level of participation according to Jansson togetherness model (social validation, anecdotic notes).

**Design:** A delayed, multiple baseline single-subject design across participants.

**Instrument:** The Computerized Evaluation Protocol of Interactions in Physical Education (CEPI-PE) (Klavina, 2011)
Five-second observation and five-second record partial interval system
Method

• Baseline: teacher-directed PE sessions
• Peer tutor training: Swedish adaptations \(\rightarrow\) focus on being a good friend
• Intervention: peer-mediated PE sessions

• Visual analysis: variability in trends, changes in levels within each experimental stage, and overlap between phases
• Procedural fidelity checks
• Social validation – interviews, field notes, informal discussions
Reflections

The adapted peer tutoring application in Swedish settings.

Class wide peer tutoring might increase the positive outcomes.

What kind of interactions are dominating and why?

Are interactions between peer tutors and students with disabilities vertical or horizontal?

How and if the type of interactions impact participation?

Is it possible for teacher to control the type of interaction?

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Questions

Comments