Impact of Proximity of Teachers' Aides and Support Strategies

Advantages and Disadvantages

Helen Stevens
Verifier, Ministry of Education

ABSTRACT
This paper draws on a wider literature review, completed by the author in 2007, about the effectiveness of teachers' aides (TAs). It discusses the effects of the proximity of TAs on the students with disabilities to whom they are assigned. It also reports on studies where TAs have been trained to support the students to interact with their peers and where TAs have trained students to interact with other students. The advantages and disadvantages of these factors are discussed.

Practice paper

INTRODUCTION
The allocation of teacher-aide (TA) time has increased hugely over the past ten years, both internationally and in New Zealand. There is considerable concern about this in the professional literature (Giangreco & Broer, 2005; Giangreco, Broer & Edelman, 2001; Giangreco, Edelman, Broer & Doyle 2001; Howes, 2003; Jones & Bender, 1993) and amongst those involved in the planning and/or delivery of special education. This is especially so where TAs are supporting students with significant disabilities. There is little empirical research demonstrating the effectiveness of TAs in supporting students to participate and learn at school, and what factors contribute to their effectiveness. There is a major tension between those who consider extensive use of TAs in an instructional role is acceptable (Chopra & French, 2004; Howes, 2003; Pickett, Litkins & Wallace, 2003; Pickett, Steckelberg & Vasa, 1993) and those who consider it is not (Giangreco et al., 1997, 1999 & 2001; Giangreco & Broer, 2005; Grigal, 1998; Jones & Bender, 1993; Moore et al., 2004;). Nevertheless, the most common strategy used for supporting students with severe disabilities in regular classrooms is to allocate a TA (Giangreco et al., 1999; Giangreco et al., 2001; Werts et al., 1996; Wolery et al., 1995). With reference to an article by Martella et al. (1995), Causton-Theoharis & Malmgren (2005) stated that the involvement of a TA may be the crucial support that enables a student with intensive academic and/or behavioural needs to be educated in a regular classroom.

Teacher-aide proximity to students
A number of studies have explored the effects of proximity of TAs on students with disabilities and/or challenging behaviours. The studies mainly suggest that TAs should avoid close proximity to the target student in order to avoid adverse effects on the student's wellbeing, learning and social interaction with peers. However, the TAs must be close enough to provide timely support. A study undertaken by Giangreco et al., (1997) reported that students with multiple disabilities in regular classes spent much of their time in close proximity to TAs who often functioned as the student's main teacher. They stated that excessive proximity of the TA resulted in problems such as:

- less ownership of, and responsibility for, the student by regular class teachers.
- separation from classmates.
- dependence on adults.
- interference with peer interactions.
- loss of personal control.
- limitations on receiving competent instruction.
- loss of gender identity by students with disabilities (taking a male student to a women's toilet area).
- interference with instruction of other students.

A study by Werts, Zigmond and Leeper (2001) produced different results. They measured the effects of proximity of a TA on the engagement and type of interaction of primary-aged students with significant disabilities. Two treatment conditions were measured – TA less than two feet, or more than five feet, from the student. Moving a TA from more than five feet away to within two feet of the student increased academic engagement and more verbal interaction between the TA and the student was associated with this. The authors therefore suggested that closer proximity should occur when academic engagement is the desired outcome. Unfortunately, the study did not consider TA proximity between two and five feet away from the student and that may well have been a significant treatment condition to have included. Giangreco and Broer (2005) challenged the Werts et al. (2001) study stating that the students in the study were used to working with TAs and therefore suggested that an equally logical explanation for the results could be that the students had become over-dependent on their TAs.

Another study, undertaken by Young, Simpson, Smith Myles and Kamps (1997), observed variation both in the extent of proximity and its impact on a range of behaviours (i.e. on-task, in-seat, self-stimulation, and inappropriate vocalisations) of three students with autism.

Teacher-initiated interactions with the target students were infrequent, but teacher involvement was higher when the TA was more than two feet away from the student. However, the authors noted that there were weaknesses in their study that affect inferences that may be drawn from the data. Howes, Farrell, Kaplan and Moss (2003) considered the Young et al., (1997) study, which was critical of close proximity, was unreliable as the results were not particularly consistent in terms of the effect of any one aspect of TA behaviour. They considered the results may have had more to do with the individual differences between the three students rather than the proximity of a TA. Nevertheless, Young et al., (1997) stated their view that they were 'of the strong opinion that inclusion is not an appropriate option for every student with autism, particularly when the inclusion is full time with a paraprofessional who has not been trained in the field and whose presence supplants a teacher's involvement' (p.37).

In a small New Zealand rural secondary school, Kavermann (1998), who studied the perceptions and experiences of TAs, reported that the TAs remained in close proximity to the students they were working with for much of the time in class. She reported that TAs required to work in this way tended to form "a bubble of isolation" that inhibited rather than facilitated inclusion. TAs spoke of the frustration they felt when required by the system to support students in a way that they did not believe to be best practice. Kavermann also reported that both the teachers and TAs she interviewed agreed that it was:

> The teacher's responsibility for ensuring work was provided for students with special educational needs at their level of ability. Teachers and teacher-aides (sic) recognised that teachers had not received adequate training to fulfil this complex task. There was general agreement that the task was probably too much for teachers to do on their own. In practice, however, the perception of the educators was that the teacher-aides (sic) were left to do the majority of the adaption of the regular class work, which was done in most cases on the spot during the lesson. (p.25)

A study by Hemmingsson, Borell & Gustavsson (2003) considered how help was provided for seven students with physical disabilities and how TAs influenced their participation in school. The students were aged seven to fifteen; five were in regular classes and two in special education classes and all had a different level of need. A striking observation was that some of the TAs were always seated close to the student while other TAs kept a distance of a couple of desks away. They all provided some practical help but the help was varied according to the proximity of the TA to the student. They described three TA types:

- "assistant as a stand-in for the student" – TA stayed close by and did everything for the student so student never asked for help
- "assistant as a help-teacher" – not so close by but observed the student and provided help when the student expressed verbally or visually that it was needed and then withdrew again
- "assistant as a back-up resource" – TA remained well in the background and the student signalled for support when it was needed and waited for help until the TA arrived.

The authors noted that although the assignment of a TA is to positively impact on the student, their study showed that a TA can both facilitate and hinder participation. Furthermore, they noted that the students had little control over when and how support was given.

Clearly the proximity of the TA to the student is a significant factor which needs to be taken into account. The argument that close proximity hinders participation by the student seems to be more compelling, but further studies are needed before this viewpoint can be regarded as conclusive.

How Teacher-aide proximity influences students' interactions with peers

Hemmingsson et al., (2003) reported that peers sometimes viewed students and TAs as a "package deal". Another finding was how TAs adversely affected the participation of the students in school. For example, TAs often separated the student from peers by moving the student to a desk away from peers or even working with the student in another room where there were no peers at all. The researchers also found that students seemed to prioritise social participation, in the sense of being accepted and included in a peer group, rather than academic achievement i.e. a student with a physical disability turned down support during an exam because his peers complained, even though this would result in a poorer result for him.

More recently, Malmgren and Causton-Theoharis (2006) found in a qualitative study of a student with an emotional and behavioural disorder, that TA proximity was the single most important classroom condition that negatively influenced peer interactions. They initially looked to see how a set of well-established factors, such as grouping patterns and level of task, influenced the classroom peer interactions of the student in an inclusive classroom. They found that most factors did not seem to affect the student's level of interaction at all. However, they found that the proximity of the TA assigned to provide him with support seemed to have a great impact on the number of predominantly positive interactions the student had with his peers. When his TA was close by, the student's interactions were severely inhibited. Of the 32 interactions with peers observed during the course of the study, 90% of them occurred during the short time frame in which the TA was not close to the student. Of a range of factors

that the authors expected to influence the student's level of interaction with his peers, only the proximity of the TA emerged as a significant factor.

Peer interaction with students

Causton-Theoharis and Malmgren (2005) showed the effectiveness of a four hour inservice training session held 1:1 with four TAs to enable them to facilitate interaction between the targeted student with severe disabilities and another student in the classroom. They emphasised that a major reason for placing students with disabilities in regular classes is to enable them to reap the social and academic benefits afforded their peers without disabilities. In the study, peer interaction was defined as any two-way communication, either verbal or nonverbal. A multiple baseline across four TA-student pairs was used over a nine week period. This included data collection, a four week suspension of data collection, followed by two maintenance probes.

Results showed that all four TAs increased their rate of facilitative behaviours after they received their training. On average, the students interacted twenty-five times more frequently during the intervention periods and maintenance probes than during baseline. The relatively small change in TA behaviour yielded a substantial increase in interaction between the target students and their peers. For all four student participants before the intervention, the rates of interaction were extremely low. The study confirmed that a relatively short and low-cost training programme could provide an immediate and potentially long-lasting impact on the overwhelmingly positive (the exception was just one negative interaction which occurred during baseline) interaction rates of students with severe disabilities in regular classrooms. Without this sort of training however, TAs can inadvertently intensify the social isolation of students with disabilities even though the regular classroom is considered to be an ideal setting in which to increase peer interactions and relationships (Causton-Theoharis & Malmgren, 2005).

A study by Shukla, Kennedy and Cushing (1999) compared two approaches for supporting the social participation of three intermediate school students with severe disabilities in regular classrooms. The researchers compared direct assistance from a TA, with peer support supervised by a TA after training and feedback was given. Results indicated that the peer support programme produced more frequent and longer social interactions for all three students. Peers without disabilities also demonstrated more frequent and varied social support behaviours to students with disabilities. Some improvement in the actual engagement of students with disabilities and their peers was observed in the peer support condition. These results suggest that peer support may be preferred to direct support from a TA for students with disabilities in regular classrooms.

Other results were that the peers who performed at or above average in academic performance did not show any decrease in active classroom engagement, while the active engagement of peers who were performing below average academically improved their academic engagement by serving as a peer support for a student with severe disabilities.

Impact of prompts and natural supports by TAs

Four experimental studies stated that TAs reported satisfaction from learning and using new skills. Corresponding data indicated positive student outcomes, such as social skills and independent task engagement, when the skills were applied.

Martella et al., (1995) taught TAs and peer tutors to use effective teaching practices in special education classrooms to minimise problem behaviours. They gave systematic training in giving appropriate instructional commands, providing specific praise statements, and correcting errors without using negative comments. Martella, Marcharnd-Martella, Macfarlane and Young (1993) had already carried out the same training with a TA working with a student with severe disabilities who exhibited aberrant behaviours. After the TA had decreased her negative comments, the student's aberrant behaviours decreased and his compliance to requests increased.

Hall, McClannahan and Krantz (1995) looked at the issue of student dependency on TAs. They asked TAs to reduce their level of verbal and gestural prompting and to teach the students to use photo activity schedules instead. When the level of prompting decreased, the students' engagement and time spent on task increased. A later study by Hall and Macvean (1997) was conducted over three years and assessed the effectiveness of incorporating naturalistic prompting strategies by TAs for increasing target communicative behaviours of students with severe spastic quadriplegic cerebral palsy. A concurrent multiple baseline design replicated across three TAs was used to determine the effectiveness of verbal and written feedback regarding their attainment of self-selected goals for prompting target communicative behaviours. After the introduction of the intervention the prompting behaviour of all TAs increased, as did the target behaviours of all students. Increases were maintained five months after intervention for all three students observed and for two of three TAs. Whether it was the self-selected goals or the feedback or both together which were effective, was not tested.

Grigal (1998) also discussed the value of using natural supports in the classroom. She noted that developing an inclusive education programme in the context of a secondary school can be particularly difficult. With respect to the curriculum and instruction, she suggested

that natural supports for students with disabilities could be as simple as having the TA available for all students rather than only for those with disabilities. She said that the support of a TA may be essential during the initial placement of a student, but once the student is used to the classroom s/he should be given the space to seek help from a peer or the teacher. She argued that over time the TA can be used as a resource for all students in the class. Other researchers have taken a slightly different view. Martin, Jorgensen and Klein (1998) agreed that the use of a TA to support other students in the class was a good idea but also suggested use of the following strategies when planning for supports in a high school classroom to get the balance right between TA involvement versus peer involvement:

- Put the most natural support into place first, and add other supports later if necessary.
- Ask the student's opinion and honour their wishes.
- Discuss with all team members, including the class teacher, the benefits of using natural supports as well as the potential costs to other students or teacher.s
- Make support decisions that provide more rather than fewer opportunities for students without disabilities to get to know and make connections with students with disabilities.
- Change the nature of the activity or environment so that all students are working cooperatively and have to rely on one another for support.

They emphasised that the support needs to be provided in a way that promotes independence, interdependence, self-determination, and a reliance on natural supports.

CONCLUSIONS

TAs are the most common form of special education resource for virtually all students with significant disabilities or challenging behaviours in regular classes in New Zealand and internationally. They have the potential to both help and hinder the learning and social interaction of these students. Before assigning a TA to a student, questions should always be asked about which strategies the TA should use to best deliver support to the student, what behaviours the TA should avoid to minimise any negative impacts on the student and, most importantly, whether anyone else is better able to provide the support required.

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AUTHOR PROFILE

Helen Stevens

Helen Stevens is a Verifier in the Assurance and Eligibility Unit of the Ministry of Education, Special Education. From 1989 to 1998 she worked as a National Adviser in Specialist Education Services and in the Ministry of Education as a Senior Policy Analyst helping to develop Special Education 2000 policy. Prior to this Helen was an educational psychologist in Wellington where she worked in an early intervention team, and assisted young children and school students with disabilities to learn in regular education settings.

Email
helen.stevens@minedu.govt.nz