Summary of recommendations

The effective use of TAs under everyday classroom conditions

1

TAs should not be used as an informal teaching resource for students who are low attaining

The evidence on TA deployment suggests schools have drifted into a situation in which TAs are often used as an informal instructional resource for students in most need. This has the effect of separating students from the classroom, their teacher and their peers.

Although this has happened with the best of intentions, this evidence suggests that this is an ineffective way of deploying TAs.

School leaders should systematically review the roles of both teachers and TAs and take a wider view of how TAs can support learning and improve attainment throughout the school.

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2

Use TAs to add value to what teachers do, not replace them

If TAs have a direct instructional role it is important they add value to the work of the teacher, not replace them – the expectation should be that the needs of all students are addressed, first and foremost, through high quality classroom teaching. Schools should try and organise staff so that the students who struggle most have as much time with the teacher as others. Breaking away from a model of deployment where TAs are assigned to specific students for long periods requires more strategic approaches to classroom organisation. Instead, school leaders should develop effective teams of teachers and TAs, who understand their complementary roles in the classroom.

Where TAs are working individually with students who are low attaining the focus should be on retaining access to high-quality teaching, for example by delivering brief, but intensive, structured interventions (see Recommendations 5 and 6).

See page 14

3

Use TAs to help students develop independent learning skills and manage their own learning

Research has shown that improving the nature and quality of TAs' talk to students can support the development of independent learning skills, which are associated with improved learning outcomes. TAs should, for example, be trained to avoid prioritising task completion and instead concentrate on helping students develop ownership of tasks.

TAs should aim to give students the least amount of help first. They should allow sufficient wait time, so students can respond to a question or attempt the stage of a task independently. TAs should intervene appropriately when students demonstrate they are unable to proceed.

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4

Ensure TAs are fully prepared for their role in the classroom

School leaders should provide sufficient time for TA training and for teachers and TAs to meet out of class to enable the necessary lesson preparation and feedback.

Creative ways of ensuring teachers and TAs have time to meet include adjusting TAs' working hours (start early, finish early), using assembly time and having TAs join teachers for (part of) planning time.

During lesson preparation time ensure TAs have the essential 'need to knows':

• Concepts, facts, information being taught
• Skills to be learned, applied, practised or extended
• Intended learning outcomes
• Expected/required feedback.

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The effective use of TAs in delivering structured interventions out of class

5

Use TAs to deliver high quality one-to-one and small group support using structured interventions

Research on TAs delivering targeted interventions in one-to-one or small group settings shows a consistent impact on attainment of approximately three to four additional months' progress (effect size 0.2–0.3). Crucially, these positive effects are only observed when TAs work in structured settings with high quality support and training. When TAs are deployed in more informal, unsupported instructional roles, they can impact negatively on students' learning outcomes.

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6

Adopt evidence-based interventions to support TAs in their small group and one-to-one instruction

Schools should use structured interventions with reliable evidence of effectiveness. There are presently only a handful of programs in the UK for which there is a secure evidence base, and fewer in Australia, so if schools are using programs that are 'unproven', they should try and replicate some common elements of effective interventions:

• Sessions are often brief (15–45 minutes), occur regularly (3–5 times per week) and are maintained over a sustained period (8–20 weeks). Careful timetabling is in place to enable this consistent delivery
• TAs receive extensive training from experienced trainers and/or teachers (5–30 hours per intervention)
• The intervention has structured supporting resources and lesson plans, with clear objectives
• TAs closely follow the plan and structure of the intervention
• Assessments are used to identify appropriate students, guide areas for focus and track student progress. Effective interventions ensure the right support is being provided to the right child
• Connections are made between the out-of-class learning in the intervention and classroom teaching (see Recommendation 7).

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Integrating learning from work led by teachers and TAs

7

Ensure explicit connections are made between learning from everyday classroom teaching structured interventions

Interventions are often quite separate from classroom activities. Lack of time for teachers and TAs to liaise allows relatively little connection between what students experience in, and away from, the classroom. The key is to ensure that learning in interventions is consistent with, and extends, work inside the classroom and that students understand the links between them. It should not be assumed that students can consistently identify and make sense of these links on their own.

See page 23

The Golden Rule of Providing Support in Inclusive Classrooms: Support Others as You Would Wish to Be Supported

Julie N. Causton-Theoharis

Consider for a moment that the school system paid someone to be with you—supporting you 8 hours a day, 5 days a week. Now, imagine that you had no say over who that support person was or how she or he supported you. Or imagine that someone regularly stopped into your place of employment to provide you with one-on-one support. This person was present for all your interactions, escorted you to the restroom, and at times supported you by touching your back or shoulder or by manipulating your hands, head, or other parts of your body. This support person might also give you oral directions for upcoming tasks.

- *Would you become more independent or more dependent?*
- *How would this support change your relationships with your peers?*
- *Would you notice a loss of privacy or freedom?*
- *Would this person's presence affect your creativity?*
- *At times, would you feel self-conscious about having someone supporting you?*
- *What if you asked him or her to move away from you and he or she did not?*
- *What would happen if you did not want him or her to touch you?*
- *What would you do?*
- *Do you think that you might develop negative behaviors?*

Now consider how your presence affects the students whom you support.

Inclusion and Adult Support

Inclusion is a way of thinking—a deeply held belief that all children, regardless of ability or disability, are valued members of the school and classroom community. Inclusive classrooms are places where all students "are integral members of classrooms, feel a connection to their peers, have access to rigorous and meaningful general education curricula and receive the collaborative support to succeed" (Causton-Theoharis & Theoharis, 2008, p. 26). One purpose of including students with disabilities in inclusive classrooms, as opposed to segregating them in special education classrooms, is to help all students (students with and without disabilities) learn to live, work, and play together so that eventually they can successfully live, work, and be together in the community as adults. For students with disabilities, inclusive schooling should promote intellectual growth, independence, and interaction with peers.

Inclusion is also a practice that puts the preceding ideals into place for all students. What are these ideas in practice? How can educators help a student feel like an integral member of the classroom? How can students develop authentic connections with their peers? What does access to meaningful general education curricula mean? And most important, what are the most effective ways to support students to help them reach these goals?

Because 54% of the 6 million students with disabilities spend more than 80% of their school day in general education classrooms (U.S. Department of Education, 2006), a common support strategy is one-on-one support. The current ratio is 1 special education paraprofessional for every 17 students with disabilities (Giangreco, Hurley, & Suter, 2009). But as schools integrate more services into the classroom, adult support will also involve a special educator, a speech and language clinician, an occupational therapist, and physical therapists or a school psychologist. In this article, the term *adult support* refers to any professional who supports a student with a disability in an inclusive classroom.

There is an art to "doing" inclusion well. Effective adult support requires finesse, subtlety, and elegance. It requires the most nuanced and careful action and—at times—inaction. Effective classroom support means that students with disabilities are integral members of the classroom and that educators allow them to be their full selves. Their membership is a given, and everyone in the classroom works together in visible and invisible ways to make the dance appear effortless. The opposite is also true. When inclusion is done poorly, it can be choppy and unnatural.

I increasingly witness adults who are furnishing support to students with disabilities but who unnecessarily draw attention to that support or to the need for support that the adult perceives. Their actions are frequently too intensive and invasive. Too often, educators cluster students with disabilities together at one table, awkwardly flank them with a paraprofessional, and seat them by the door; or an adult physically manipulates them to correct their behavior. Adults are often unnecessarily close to students during lectures, or they give oral prompts at an overwhelming rate. This invasive support invariably draws undue attention to the student who is receiving support and at the same time interferes with the natural flow of the classroom, student interaction, and community membership (Broer, Doyle, & Giangreco, 2005; Giangreco, Yuan, McKenzie, Cameron, & Fialka, 2005). When support becomes invasive, it undermines the purposes of inclusion.

The Golden Rule of Adult Support

Adult help can be seamless and effective—and thereby fully support the purposes of inclusion. The golden rule for adult support in inclusive class-

Effective adult support requires finesse, subtlety, and elegance.

rooms is to support others as you would wish to be supported. Adequately applying the golden rule requires knowledge and imagination. Educators need to know the effect of their actions on students.

Rationale for Fading Support

This article next discusses the need for fading support, as reflected in the liter-

ature. Fading assistance means systematically reducing the type and level of support given to a student. Fading support can reduce the negative impact of adult support and allow for more natural supports to occur. The research in fading support is clear. Invasive adult support has had inadvertent detrimental effects on students with disabilities. Giangreco, Edelman, Luiselli, and MacFarland (1997) listed the following detrimental effects of paraprofessional proximity:

- Separation from classmates.
- Unnecessary dependence on adults.
- Interference with peer interactions.
- Insular relationships between the paraprofessional and the student.
- A feeling of being stigmatized.
- Limited access to competent instruction.
- Interference with teacher engagement.
- Loss of personal control.
- Loss of gender identity.
- Provocation of behavior problems.

Subsequent research has also found that other key detrimental impacts of adult support are interference with creativity (Causton-Theoharis, & Burdick, 2008) and interference with teacher contact and instruction.

Unnecessary Dependence on Adults

When adult support is consistently present, is overbearing, and does not fade appropriately, the student learns to expect adult support. Psychologists have called this phenomenon *learned helplessness*; that is, behavior resulting from a perceived absence of control over the outcome of a situation (Seligman, 1975). Students quickly perceive their own lack of control and learn to wait for cues, direction, or prompting from an adult before engaging with the material. Giangreco et al. (2005) call this phenomenon *unnecessary dependence* (see box, "Case Study: Adam" for an example of unnecessary dependence). Alternatives to having a paraprofessional open a student's book include asking a peer to help, marking

Case Study: Adam

A teacher instructed the students to take out their books and open them to a particular page. Most students opened their books; but Adam, a student who received support from a paraprofessional, did not and instead looked around the room. He was looking for the paraprofessional assigned to him. She came over to him, placed her hand on his shoulder, took his book from his desk, placed the book on his desk, repeated the page number, and opened the book to the correct page.

the page with a sticky note, or asking all the students to check with a neighbor to verify that the neighbor is ready. Assigning an adult as the primary support too often creates dependence on that support and thereby teaches students to rely on a support that most likely will not be available in their homes or when they exit school as young adults. Support that encourages independence or interdependence during school best prepares students for life outside school.

Interference With Peer Interactions

An adult support person can create a physical or symbolic barrier that interferes with interactions between the student and his or her classmates (Giangreco et al., 2005). In a study that the author of this article conducted with Malmgren (Malmgren & Causton-Theoharis, 2006), the authors observed a second-grade student named Gary working in his classroom and playing with his friends. A paraprofessional supported Gary throughout his day. During a 4-week period, Gary participated in only 32 interactions with his peers; 29 of those interactions occurred when the paraprofessional was absent, but only 3 occurred when the paraprofessional was present. The paraprofes-

sional ended 2 of those 3 interactions by asking Gary to get back to work. The presence of the paraprofessional clearly had a significant impact on Gary's ability or willingness to connect with other students. That study underscores the negative impact that invasive support by a paraprofessional can have on peer interactions.

Jamie, a high school student with autism, described the impact that adult support had on his social interactions. He emphasized that such support should be subtle and should not interfere with his desire for a social life: "We are willing and ready to connect with other kids, and adults must quietly step into the background, camouflaging their help as a tiger who may hide in full view" (Tashie, Shapiro-Barnard, & Rossetti, 2006). When appropriate, fading of support can alleviate the stigma associated with invasive supports. In the 2005 study by Broer et al., adolescents who had paraprofessional support expressed relief when support was appropriately withdrawn.

Interference With Creativity

Learning in school often takes the form of creative expression. Causton-Theoharis & Burdick (2008) found that paraprofessional support created barriers to authentic art production and creativity. Their study involved 18 stu-

Support that encourages independence or interdependence during school best prepares students for life outside school.

dents (from 10 schools) who received paraprofessional support in the art classroom. Paraprofessionals sometimes interfered with physical access (e.g., by bringing students to class late or not at all or by removing students from class); caused interrupted authenticity (e.g., by limiting materials or suggesting ideas that the student then carried out); and caused altered art production entirely (e.g., by changing the art project or expectations for the student). If the goal of inclusion is to allow students meaningful access to the curriculum and instruction, educa-

tors must examine invasive adult supports that interfere with the creative process of learning.

Interference With Teacher Contact and Instruction

Students with the most challenging learning needs deserve more contact time with the most trained teachers in a school. Unfortunately, when a paraprofessional works with a particular student and the paraprofessional remains close to the student, less teacher-to-student interaction occurs (Young, Simpson, Mylers, & Kamps, 1997). Teachers tend to be less involved and assume less responsibility for the student who has a disability because of the presence of another adult (Giangreco, Broer, & Edelman, 2001). Research confirms that although paraprofessionals play a prominent role in both planning and implementing instruction for students with disabilities, they are largely untrained to perform this important work (Minondo, Meyer, & Xin, 2001; Riggs & Mueller, 2001). Because paraprofessionals often do not receive training in teaching methods, they at times do the work for students instead of carefully scaffolding each step of the learning process.

Another important study examined the perspectives of high school students with disabilities who attended general education classes with paraprofessional support. These students described their paraprofessionals' roles in four ways: (a) mother, (b) friend, (c) protector, and (d) primary teacher (Broer et al., 2005). Most of the students "expressed powerful messages of disenfranchisement, embarrassment, loneliness, rejection, fear, and stigmatization" (Broer et al., p. 427) because of adult support.

To address the problem of the potential damage of invasive supports, educators must put themselves in the shoes of students with disabilities. The students' feelings of embarrassment, loneliness, rejection, fear, and stigmatization are not what educators would want their own day-to-day experiences to include. Educators should definitely support students in ways that are humanistic, respectful, and gentle—in ways that adults would wish to be supported.

How to Fade Adult Support

In following the golden rule of adult support, you must first imagine yourself in the student's place. How would you want the support that you required to look and feel? Many people would first and foremost want to direct their support and have a say over how and when someone provided them with support. Second, people would want the support to be discreet. They would prefer unhindered access to their peers and would want the support to have a specific purpose and to fade away when unnecessary. Four distinct steps related to how to support are the following:

- Plan to include.
- Ask and listen.
- Step back.
- Plan to fade your support.

Plan to Include

One reason that educators rely on side-by-side support is that they have not planned anything else. They have not planned to ensure that the student has access to the curriculum, have not modified the materials, and do not have alternative adult roles. In French's (2001) study of 321 special educators, 81% reported that they had not done any planning for their paraprofessionals. Of the 19% who did plan, the planning was primarily oral rather than written. In all probability, few, if any, of the special educators provided modeling of specific instructional approaches. Several basic classroom decisions support the idea of fading. These include the following:

- Rearrange the furniture.
- Relinquish traditional adult roles.
- Modify the work.
- Encourage peer support.

Rearrange the Furniture. Have you ever seen a classroom in which a chair is permanently placed next to a particular student? That chair's very presence indicates to everyone in the room that the student needs help and needs

Alternatives to Side-by-Side Support

1. Modify the material so that the student can do the work independently.
2. Modify the expectations so that the student can complete the task without support.
3. Pair everyone in the class with a partner.
4. Model written notes for everyone on the overhead projector.
5. Check in on students periodically—walk around the room and support all students.
6. Stand in the front of the room, and write main ideas on the chalkboard for all students.
7. Sit at a side table to create modifications for an upcoming lesson while keeping an eye on a particular student.
8. Arrange for peer support.
9. Go to the library to find visual materials to support an upcoming lesson.
10. Create a to-do list on a student's desk instead of providing verbal reminders.

so much help that the educators have permanently arranged the furniture to support him or her. However, a student very rarely needs side-by-side support. Educators can support even students who have significant disabilities by using other methods that do not require a permanent chair (Kluth, 2005). In line with previous research about the negative repercussions of invasive adult proximity, the easiest thing to do is to remove the chair. Do not sit or place a chair meant for adult support next to a student. Where you position yourself during instruction is also very important. Even when students need close support because of behavior difficulties or physical needs, educators should use temporary or intermittent supports rather than permanent supports. Determine when side-by-side support is necessary and when it can be faded (see box, "Alternatives to Side-by-Side Support").

Relinquish Traditional Adult Roles. Building the capacity for all adults to work together instead of assigning specific personnel to support certain students is a much more useful way to think about inclusion (see box, "Case Study: Kathy and June" for an example of two teachers who have relinquished their traditional adult roles). Classrooms based on shared responsibility supports can benefit a wider range of students with and without disabilities. The teachers can plan differentiated instruction together, modify the materials and expectations, and invariably negate the need for side-by-side support.

Modify the Work. Educators should frequently modify materials, content, or instruction to ensure access instead of relying solely on adult support. Some examples of modified materials include enlarged handouts, adaptive paper, a word bank, or a simple piece of masking tape to hold a paper still while a student writes. Modifying content might include reducing the number of problems that the student performs independently. For instance, a middle school student might only have to draw and solve four math problems while his or her classmates solve six; reducing the number of required problems can enable the student to independently complete all his or her work in the allotted time. See box, "Case Study: Kirsten" for another example of modifying the work.

Encourage Peer Support. What alternative can replace a paraprofessional sitting next to a particular student? Peer support is a well-researched evidence-based practice (Carter, Cushing, Clark, & Kennedy, 2005). Set up partnerships during instructional time. Have all students work together. Set up play partners, transition partners (partners for walking to and from classes), choice-time partners, lunchtime partners, math partners, and so forth. Make sure that the student has a choice about whom he or she selects as a partner and whether she or he wants support. When a student requests help, redirect the student to ask a peer. Asking a peer should be the norm for all students. One useful way to set up a peer-support system is to tell all students to follow the rule, "Ask three before me." Having students seek peer support is a valid and important lifelong skill. For example, a third-grade teacher uses "ask me" hats. When he gives out directions, he designates three students to be "ask me students." Then if students need help or support, they first contact the students wearing the hats.

Ask and Listen

Educators often look to the individualized education program (IEP) or to past or present teachers to determine how to best support students. These resources are not always helpful for understanding the type of support that a student needs. The best way to learn about a student's needs is to ask the student. Students with disabilities should decide about their own supports. Furthermore, educators should examine students' behavior and other nonverbal messages to learn what students want.

Ask the Student. Asking students how they would like educators to support them communicates respect and value for their choices. Jane, a middle school art teacher, offers one example for learning about a student's preferred type of support. She works with the student to determine the necessity of support on the basis of a given activity instead of assuming that the student needs paraprofessional support at all times. She consults the student and the

paraprofessional before each project to decide how much support is necessary:

> After I give instructions and before letting Sarah [the student] get started on a project, I ask her, would you like any support with this project? If she says yes, I let her choose if she wants my help, Mrs. Little's [the paraprofessional] help, or the help of a friend. I then listen to her . . . if she says I don't need help on this project, I let her go it alone.

Educators should ask students some questions:

- During this assignment, what do you need?
- When we work on the computer, how do you want me to support you?
- Would you prefer that I remind you or that I write you a to-do list?
- Where do you want me to sit during the film?
- When you get angry like that again, what can I do to help you?

If the student's specific choice does not work initially, ask again with the objective of learning ways that do work. The educator may need to specifically teach students the self-advocacy skills necessary for them to receive comfortable supports. If a stu-

such as through pinching, biting, hitting, or swearing. When students engage in behavior that is challenging, they are often trying to communicate something (e.g., I am angry, upset, scared, frustrated, or bored), or they have an unmet need (e.g., independence, control, power, or self-regulation). The best response is to recognize the behavior as communication and try to determine the unmet need. Then respond to the student's request, especially when the student wants the adult to step back to allow engagement with peers without an adult near him or her.

Step Back

Fade Your Cues. One of the simplest yet most effective ways to increase interaction is to fade the assistance of paraprofessionals. Fading assistance means deliberately reducing the type and level of support systematically given to a student. Reducing support promotes independence, interdependence, and interaction with peers (Causton-Theoharis & Malmgren, 2005; Malmgren & Causton-Theoharis, 2006; Malmgren, Causton-Theoharis, & Trezek, 2005). If a student can complete a task in your presence without adult support, have him or her complete the task without supervision the

intrusive supports toward the least intrusive supports (Doyle, 2008).

Plan to Fade Your Support

Create a Fading Plan. The following questions will help your team fade support more effectively:

1. When is it necessary to be next to this student (e.g., when providing medical assistance, lifting or transferring a student, or furnishing personal care)?

2. For this skill or time period, is the goal independence (done by the student himself or herself) or interdependence (done with the support of a peer)?

3. What types of cues are educators using with this student (see the cueing structures in Table 1)?

4. What next step will reduce the type and level of support given to this student?

5. Can anyone else provide more natural supports to this student?

6. What materials or content should educators modify to allow the student to experience more independence?

Don't Just Sit There. Adults often use the phrase, "try to work yourself out of a job." This article does not suggest that goal; it also does not suggest

dent does not use oral communication, the teacher can observe him or her to learn what works. Allow the student to make choices in ways that are not verbal (e.g., eye pointing or finger pointing). For example, write on one index card the word *friend* and write your name on another index card, and then

The best way to learn about a student's needs is to ask the student.

ask whether the student prefers to have your help carrying his or her books or have a friend's help. Students are the most powerful resources in determining how to provide helpful support.

Listen to More Than Words. Students often communicate that they do not want invasive adult support, but adults frequently do not respond to that communication (see box, "Case Study: Michael" for an example of a student who attempted to communicate that he did not want adult support in the way that educators furnished it). Some students will ask an adult to please move away from them; however, other students communicate this desire in less socially appropriate ways,

next time (see box, "Case Study: Andrea" for an example).

Continuously ask what next step will enable a student to become more independent and less dependent on adult support. If a student still needs assistance, consider having interdependence (or completing the task with other students) be the goal. Providing support in natural ways helps reduce dependence on support personnel. The suggestions in this article can help you follow the golden rule, maximize student independence and interdependence with peers, and minimize the negative impact of overly intensive adult supports. Look at the cueing structure list shown in Table 1. The objective is always to move away from the most

Table 1. A Range of Supports (Listed From Most Intrusive to Least Intrusive)

Type of Support	Definition	Example
Full physical	Direct and physical assistance used to support a student	Hand-over-hand assistance while a student writes his or her name
Partial physical	Physical assistance provided for some of the total movement required for the activity	Putting a zipper into the bottom portion and beginning to pull it up; the student then pulls the zipper up the rest of the way
Modeling	A demonstration of what the student is to do	The paraprofessional does an art project; the student uses the art project as a model
Direct oral	Oral information provided directly to the student	"Josh, stand up now."
Indirect verbal	A verbal reminder that prompts the student to attend to or think about what is expected	"Josh, what should happen next?"
Gestural	A physical movement to communicate or accentuate a cue (e.g., head nod, thumbs up, pointing).	Paraprofessional points to the agenda written on the board
Natural	Providing no cue; allowing the ordinary cues that exist in the environment help the student know what to do	The bell rings for class. The teacher asks students to move to the rug. A message on the chalkboard reads "Turn to page 74."

Note. Adapted from *The Paraprofessional's Guide to the Inclusive Classroom: Working as a Team* (3rd ed.) by M. B. Doyle, 2008, Baltimore: Paul H. Brookes. Copyright 2008 by Paul H. Brookes. Adapted with permission.

Table 2. Co-supporting Structures

If the Teacher Is Doing This:	You Can Be Doing This:
Lecturing	Model note taking on the board, draw the ideas on the board, take notes on the overhead.
Taking attendance	Collect and review homework.
Giving directions	Write the directions on the board so that all students have a place to look for the visual cues.
Providing large-group instruction	Collect data on student behavior or engagement or make modifications for an upcoming lesson.
Giving a test	Read the test to students who prefer to have the test read to them.
Facilitating stations or small groups	Also facilitate stations or groups.
Facilitating sustained silent reading	Read aloud quietly with a small group.
Teaching a new concept	Provide visuals or models to enhance the understanding of the whole group.
Reteaching or preteaching with a small group	Monitor the large group while it works independently.

Note. Adapted from "Tips and Strategies for Co-Teaching at the Secondary Level" by W. Murawski and L. Deiker, 2004. *TEACHING Exceptional Children, 36(5)*, 52–58. Copyright 2004 by the Council for Exceptional Children. Adapted with permission.

that instead of supporting a student, educators should just sit there. Several strategies can make student support more seamless. For example, instead of sitting next to a student while the teacher takes attendance, the paraprofessional can take attendance while the general education teacher floats around the room checking in with everyone. When the student does not require direct support, the paraprofessional can prepare instructional materials for the class or individual students. Table 2 lists several co-support strategies that actively support the classroom of learners (Murawski & Dieker, 2004).

Final Thoughts

Inclusion is a way of thinking, a way of being, and a way of making decisions about helping everyone belong. Educators must provide supports that align with that vision. To enact the golden rule of adult support, educators need to imagine themselves receiving support from others. Educators need to think about how they would wish to be supported. They then need to give support that is planned and responsive

> **Inclusion is
> a way of thinking,
> a way of being,
> and a way of making
> decisions about
> helping everyone belong.**

to students' wishes, in addition to being discreet and unobtrusive. With knowledge, imagination, and the golden rule, educators can furnish adult support that embodies the true philosophy of inclusion.

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Guidance Report

All year levels

Making Best Use of Teaching Assistants

Contents

Foreword

Teaching Assistants* are adults who support teachers in the classroom, and they are an invaluable resource in Australian schools. The 90,500-strong workforce are known by a variety of titles across Australia.[1] Their duties, qualifications and training differ widely across jurisdictions and from school to school. Similarly, the impact TAs have on learning outcomes varies too.[2]

When utilised effectively and supported well, TAs can make a significant difference to the learning outcomes of students. The research on the impact of Teaching Assistants in Australia is not extensive. This is why we have produced this Guidance Report.

Developed by our UK partner, the Education Endowment Foundation (EEF), and updated for Australian audiences, it offers seven practical evidence-based recommendations which are relevant to school leaders, business managers and teachers who are involved in the resourcing and deployment decisions for TAs. To develop the recommendations, the EEF reviewed the best available international research and consulted experts to understand the use of TAs in schools.

To confirm the relevance of these concepts to Australian schools, the E4L team consulted with Australian experts and systems.

Use this Guidance Report alongside your state or territory legislation around TAs, role descriptions and enterprise agreements, and draw on your professional judgement.

We acknowledge the significant cultural and community expertise that TAs bring to schools across Australia, which is complementary to their work in the classroom. Not all of what TAs contribute is captured in this Guidance Report, and we encourage you to recognise and value the role TAs play in the life of your school.

We hope that you will appreciate our contribution to the shared endeavour of consistently excellent use of TAs in all Australian schools.

The Evidence for Learning team

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*In line with common usage, we use the term 'Teaching Assistant' (TA) to encompass equivalent classroom- and student-based paraprofessional roles, such as 'Learning Support Assistant', 'Teacher's Aide', 'Integration Aide' and 'Classroom Assistant'. We also include 'Higher Level Teaching Assistants' in this definition. It does not include employees such as Speech Pathologists and Occupational Therapists.

Introduction

What is this guide for?

This Evidence for Learning Guidance Report is designed to provide practical, evidence-based guidance to help primary and secondary schools make the best use of teaching assistants (TAs). It contains seven recommendations, based on the latest research examining the use of TAs in classrooms.

The guidance draws predominately on studies that feed into the Teaching & Learning Toolkit. Key studies include new findings from EEF-funded evaluations and a program of research from UCL Institute of Education.[3] As such, it is not a new study in itself, but rather is intended as an accessible overview of existing research with clear, actionable guidance.

Although the evidence base is still developing around TAs, there is an emerging picture from the research about how best to deploy, train and support them to improve learning outcomes for students.

The guide begins by summarising the way in which TAs are typically used, with 'key findings' drawn from the latest research. This is followed by seven recommendations to guide schools in maximising the impact of TAs. These are arranged in three sections:

a. recommendations on the use of TAs in everyday classroom contexts;

b. recommendations on TAs delivering structured interventions out of class; and

c. recommendations in linking learning in everyday classroom contexts and structured interventions.

Each of the recommendations contains information on the relevant research and the implications for practice.

At the end of the guidance there are some ideas and strategies on how schools might act on the evidence.

As well as presenting a snapshot of the current evidence, the report also highlights where further research is needed (see Boxes 1 and 2). Details of the approach used to develop the guide are available in the section 'How was this guide compiled?'

Who is this guide for?

This guide is aimed primarily at principals and other members of the leadership team in both primary and secondary schools. Research suggests that rethinking the role of TAs is much more likely to be successful if leaders coordinate action, given their responsibility for managing change at a school level and making decisions on staff employment and deployment. It is recommended that others involved in the coordination of TAs, such as business managers, are included in the process. School councils should also find the guidance helpful in supporting the leadership team with the deployment of staff and resources across the school. While the guidance draws primarily on research conducted in mainstream settings, it is anticipated that it will also be relevant to schools for specific purposes (SSPs), alternative provisions, specialist schools and centres.

Class teachers should also find this guidance useful, as they often have the day-to-day responsibility for deciding how to make the most effective use of the TAs with whom they work. Finally, although this guidance is not specifically intended for TAs it is hoped they will also find it of relevance and interest, given they are often directly involved in the change process.

Using this guide

This guide highlights the need for careful planning when rethinking the use of TAs, taking into account the local context as well as the wider evidence base. There is no 'one size fits all' solution; as a school, you will need to arrive at solutions that draw on the research and apply them appropriately within your context. At the same time, it is important to consider the recommendations carefully and how faithfully and consistently they are applied in your school.

Inevitably, change takes time, and we recommend taking at least two terms to plan, develop and pilot strategies on a small scale at first, before rolling out new practices across the school. Gather support for change across the school and set aside regular time throughout the year to focus on this project and review progress.

The section 'Acting on the evidence', suggests a range of strategies and tools that you might find helpful in planning, structuring and delivering a whole-school approach to improving the use of teaching assistants.

What is the typical impact of TAs in schools?

What is the impact of TAs on students' academic attainment?

Key finding

The typical deployment and use of TAs, under everyday conditions, is not leading to improvements in academic outcomes

The largest and most detailed study investigating the deployment and impact of TAs in schools to date is the Deployment and Impact of Support Staff (DISS) project, conducted between 2003 and 2008 in UK schools.[3] The analysis studied the effects of the amount of TA support – based on teacher estimates of TA support and systematic observations – on 8,200 students' academic progress in English, mathematics and science. Two cohorts of students in seven age groups in mainstream schools were tracked over one year each. Other factors known to affect progress (and the allocation of TA support) were taken into account in the analysis, including students' Special Education Needs (SEN) status, prior attainment, eligibility for Free School Meals (socioeconomic status equivalent), English as an Additional Language and students experiencing disadvantage.

The results were striking: 16 of the 21 results were in a negative direction and there were no positive effects of TA support for any subject or for any year group. Those students receiving the most support from TAs made less progress than similar students who received little or no support from TAs. There was also evidence that the negative impact was most marked for students with the highest level of Special Education Needs and Disability (SEND), who, typically receive the most TA support.

Other research exploring the impact of TAs in everyday classroom contexts supports these findings. In the US, evidence from the Tennessee Student Teacher Achievement Ratio (STAR) project found there was no beneficial effect on student attainment of having a 'teacher aide' in kindergarten to Grade 3 classes (equivalent of Years 1–4).[4] In other UK studies, students with SEND assigned to TAs for support have been shown to make less progress than their unsupported peers, in both literacy and maths.[5,6]

As we shall see, there is good emerging evidence that TAs can provide noticeable improvements to student achievement. Where improvements are observed, TAs are working well alongside teachers in providing excellent supplementary learning support. However, importantly, this is happening inconsistently across classrooms and schools.

While the DISS project results were reported in 2009, evidence from the Making a Statement (MAST) and SEN in Secondary Education (SENSE) studies, conducted between 2011 and 2017, and which focused on the day-to-day educational experiences of students with SEND, suggest the deployment of TAs in the UK has not changed substantially since.

An independent evaluation is currently underway of Maximising the Impact of TAs (MITA), a whole-school program designed to improve the areas of decision-making and classroom practice that explain the impact findings identified through the DISS project.

There is some available research within Australia exploring the use of TAs but no studies were identified that have been dedicated to understanding their impact on student attainment. As such, we rely heavily on the international experience to inform our understanding.[7]

What is the impact of TAs on student behaviour, motivation and approaches to learning?

Key finding

There is mixed evidence to support the view that TA support has a positive impact on 'soft' outcomes. Some evidence suggests TA support may increase dependency

Teachers report that assigning TAs to particular students for individual support – usually those with difficulties connected to learning, behaviour or attention – helps them develop confidence and motivation, good working habits and the willingness to finish a task.[3] Other research has identified the benefits of TAs more in terms of the range of learning experiences provided and the effects on student motivation, confidence and self-esteem, and less in terms of student progress.[8]

On the other hand, there are concerns that TAs can encourage dependency, because they prioritise task completion, rather than encouraging students to think and act for themselves.[9] Taken further, it has been argued that over-reliance on one-to-one support leads to a wide range of detrimental effects on students, in terms of interference with ownership and responsibility for learning, and separation from classmates.[3]

The DISS project examined the effect of the amount of TA support on eight scales representing 'Positive Approaches to Learning' (PAL):

- Distractibility;
- Task confidence;
- Motivation;
- Disruptiveness;
- Independence;
- Relationships with other students;
- Completion of assigned work; and
- Following instructions from adults.

The results showed little evidence that the amount of support students received from TAs over a school year improved these dimensions, except for those in Year 9 (13–14-year-olds), where there was a clear positive effect of TA support across all eight PAL outcomes.

Nevertheless, the evidence on the impact of TAs on non-academic outcomes is thin and based largely on impressionistic data. This balance between a TA's contribution to academic and non-academic outcomes needs more attention.

What is the impact of TAs on teachers and learning?

Key finding

TAs help ease workload and stress, reduce classroom disruption and allow teachers more time to teach

Although the effects of TAs on students' academic learning are worrying, it is worth noting that there is good evidence that delegating routine administrative tasks to TAs frees teachers up to focus more time on the core functions of teaching – such as planning, assessment and time spent in class.[3,10] Benefits are also found in terms of reducing workload and improving teachers' perceptions of stress and job satisfaction.[3]

Teachers are largely positive about the contribution of TAs in classrooms, reporting that increased attention and support for learning for those students who struggle most has a direct impact on their learning, and an indirect effect on the learning of the rest of the class.[3]

Results from observations made as part of the DISS project confirm teachers' views that TAs had a positive effect in terms of reducing disruption and allowing more time for teachers to teach.[3]

How are TAs currently being used in schools?
Explaining the effects of TA support on learning outcomes

In order to understand the impact of TAs on students' learning outcomes it is important to look at how they are currently being used in schools.

The DISS project revealed ambiguity and variation in the way TAs are used both within and between schools. In one sense TAs can help students indirectly, by assisting the school to enhance teaching (e.g. by taking on teachers' administrative duties), but as we shall see, many TAs also have a direct teaching role, interacting daily with students (mainly those with learning and behavioural needs), supplementing teacher input and providing one-to-one and small group support.

Simply put, research suggests it is the decisions made about TAs by school leaders and teachers, not decisions made by TAs, that best explain the effects of TA support in the classroom on student progress. In other words, school leaders and teachers are crucial to ensuring the effective use of TAs.

Key finding

TAs spend the majority of their time in an informal instructional role supporting students with most need

A striking finding from the DISS project was the observation that the majority of TAs spent most of their time working in a direct, but informal, instructional role with students in a small group and one-to-one basis (both inside and outside of the classroom). Results were also clear about which students' TAs worked with. TA support was principally for students failing to make expected levels of progress, or those identified as having SEND. TAs hardly ever supported average or higher attaining students.

Although this arrangement is often seen as beneficial for the students and the teacher – because the students in need receive more attention, while the teacher can concentrate on the rest of the class – the consequence of this arrangement is a 'separation' effect. As a result of high amounts of (sometimes, near-constant) TA support, students with the highest level of SEND spend less time in whole-class teaching, less time with the teacher, and have fewer opportunities for peer interaction, compared with non-SEND students.[11,12]

The net result of this deployment is that TAs in mainstream schools regularly adopt the status of 'primary educator' for students in most need.

Key finding

Support from TAs tends to be more focused on task completion and less concerned with developing understanding

Previous studies have suggested a number of positive features regarding the nature and quality of TAs' interactions with students: interactions are less formal and more personalised than teacher to-student talk; they aid student engagement; help to keep them on-task; and allow access to immediate support and differentiation.[13] However, other research has highlighted the unintended consequences of high amounts of TA support (see previous section).[3]

Evidence from classroom recordings made during the DISS project revealed that the quality of instruction students received from TAs was markedly lower compared to that provided by the teacher. TAs tended to step in early and 'spoon-feed' answers.[14] Over time, this can limit understanding, weaken students' sense of control over their learning and reduce their capacity to develop independent learning skills. As students 'outsource' their learning to TAs, they develop a 'learned helplessness'.

Key finding

TAs are not adequately prepared for their role in classrooms and have little time for liaison with teachers

There was clear evidence from the DISS project that TAs frequently come into their role unprepared, both in terms of background training and day-to-day preparation. Like the UK, there are no standard entry qualifications for TAs in Australia and many do not receive any induction training.

TAs also have different levels of formal qualifications when compared with teachers; the majority of TAs, for example, do not have an undergraduate degree.[3] This level of training is important considering their common deployment as 'primary educators' for students who are low attaining and students with SEND. It is often argued – quite sensibly – that for students who are low attaining and students with SEND, TAs' qualifications should make a difference to student outcomes, but there is no evidence that this is the case.[15,16,17] Schools must think and act strategically to ensure TAs' roles are matched with individuals' qualifications and skills.

On a day-to-day level, the results from the DISS, MAST and SENSE studies revealed clear concerns about how TAs are prepared to support student learning. The vast majority of teachers (especially secondary teachers) reported having no allocated planning or feedback time with the TAs they worked with, and no training in relation to managing, organising or working with TAs.

Communication between teachers and TAs is largely ad hoc, taking place during lesson changeovers and before and after school. As such, conversations rely on the goodwill of TAs. Many TAs report feeling underprepared for the tasks they are given. They 'go into lessons blind' and have to 'tune in' to the teacher's delivery in order to pick up vital subject and pedagogical knowledge, tasks and instructions.[2]

Summary of recommendations

The effective use of TAs under everyday classroom conditions

1
TAs should not be used as an informal teaching resource for students who are low attaining

The evidence on TA deployment suggests schools have drifted into a situation in which TAs are often used as an informal instructional resource for students in most need. This has the effect of separating students from the classroom, their teacher and their peers.

Although this has happened with the best of intentions, this evidence suggests that this is an ineffective way of deploying TAs.

School leaders should systematically review the roles of both teachers and TAs and take a wider view of how TAs can support learning and improve attainment throughout the school.

2
Use TAs to add value to what teachers do, not replace them

If TAs have a direct instructional role it is important they add value to the work of the teacher, not replace them – the expectation should be that the needs of all students are addressed, first and foremost, through high quality classroom teaching. Schools should try and organise staff so that the students who struggle most have as much time with the teacher as others. Breaking away from a model of deployment where TAs are assigned to specific students for long periods requires more strategic approaches to classroom organisation. Instead, school leaders should develop effective teams of teachers and TAs, who understand their complementary roles in the classroom.

Where TAs are working individually with students who are low attaining the focus should be on retaining access to high-quality teaching, for example by delivering brief, but intensive, structured interventions (see Recommendations 5 and 6).

3
Use TAs to help students develop independent learning skills and manage their own learning

Research has shown that improving the nature and quality of TAs' talk to students can support the development of independent learning skills, which are associated with improved learning outcomes. TAs should, for example, be trained to avoid prioritising task completion and instead concentrate on helping students develop ownership of tasks.

TAs should aim to give students the least amount of help first. They should allow sufficient wait time, so students can respond to a question or attempt the stage of a task independently. TAs should intervene appropriately when students demonstrate they are unable to proceed.

4
Ensure TAs are fully prepared for their role in the classroom

School leaders should provide sufficient time for TA training and for teachers and TAs to meet out of class to enable the necessary lesson preparation and feedback.

Creative ways of ensuring teachers and TAs have time to meet include adjusting TAs' working hours (start early, finish early), using assembly time and having TAs join teachers for (part of) planning time.

During lesson preparation time ensure TAs have the essential 'need to knows':

- Concepts, facts, information being taught
- Skills to be learned, applied, practised or extended
- Intended learning outcomes
- Expected/required feedback.

The effective use of TAs in delivering structured interventions out of class

Integrating learning from work led by teachers and TAs

5

Use TAs to deliver high quality one-to-one and small group support using structured interventions

Research on TAs delivering targeted interventions in one-to-one or small group settings shows a consistent impact on attainment of approximately three to four additional months' progress (effect size 0.2–0.3). Crucially, these positive effects are only observed when TAs work in structured settings with high quality support and training. When TAs are deployed in more informal, unsupported instructional roles, they can impact negatively on students' learning outcomes.

6

Adopt evidence-based interventions to support TAs in their small group and one-to-one instruction

Schools should use structured interventions with reliable evidence of effectiveness. There are presently only a handful of programs in the UK for which there is a secure evidence base, and fewer in Australia, so if schools are using programs that are 'unproven', they should try and replicate some common elements of effective interventions:

- Sessions are often brief (15–45 minutes), occur regularly (3–5 times per week) and are maintained over a sustained period (8–20 weeks). Careful timetabling is in place to enable this consistent delivery

- TAs receive extensive training from experienced trainers and/or teachers (5–30 hours per intervention)

- The intervention has structured supporting resources and lesson plans, with clear objectives

- TAs closely follow the plan and structure of the intervention

- Assessments are used to identify appropriate students, guide areas for focus and track student progress. Effective interventions ensure the right support is being provided to the right child

- Connections are made between the out-of-class learning in the intervention and classroom teaching (see Recommendation 7).

7

Ensure explicit connections are made between learning from everyday classroom teaching structured interventions

Interventions are often quite separate from classroom activities. Lack of time for teachers and TAs to liaise allows relatively little connection between what students experience in, and away from, the classroom. The key is to ensure that learning in interventions is consistent with, and extends, work inside the classroom and that students understand the links between them. It should not be assumed that students can consistently identify and make sense of these links on their own.

The effective use of TAs under everyday classroom conditions

"Addressing the current situation is a school leadership issue: school leaders should rigorously define the role of TAs and consider their contribution in relation to the drive for whole-school improvement"
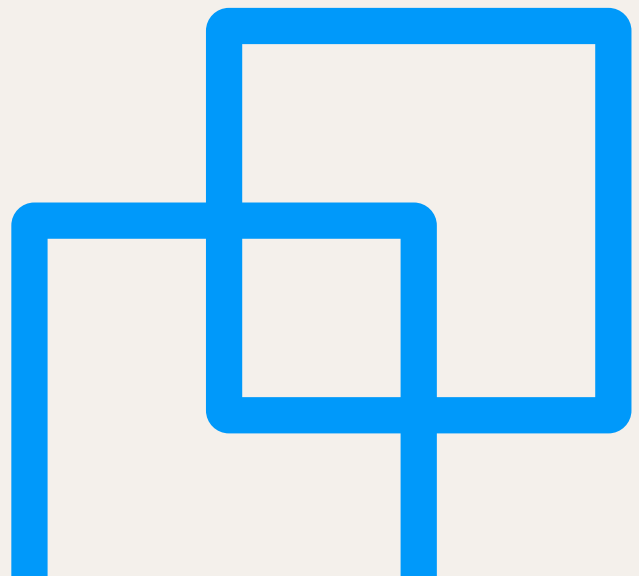
The research outlined previously suggests that the ways in which TAs are often used in schools, do not represent a sound educational approach for students who are low attaining or those with SEND. Indeed, it has led to unhelpful questions about the overall cost-effectiveness of employing TAs in schools. Encouragingly, research is showing that schools can make relatively straightforward changes that enable TAs to work much more effectively, in ways that can have a potentially transformative effect on student outcomes.

The recommended strategies outlined in this section focus on maximising the use of TAs in everyday classroom contexts. They are based heavily on follow-on studies from the DISS project, in particular the Effective Deployment of Teaching Assistants (EDTA) project, and the developmental work of the Maximising the Impact of Teaching Assistants (MITA) program, which supports schools to develop alternative ways of using TAs that work for both staff and students, and address the previously identified challenges.[18] Further information on this research is available in Box 1, 'What evidence is there on the use of TAs in everyday classroom contexts?'

A key conclusion arising from the evidence on TA deployment is that they are often used as an informal teaching resource for students most in need. Though this has happened with the best of intentions, it often results in those students being separated from the teacher, whole-class teaching, and their peers. As this arrangement is associated with lower learning outcomes and independence, it suggests that this is an ineffective way of deploying TAs.

These decisions on deployment are the starting point from which all other decisions about TAs flow.

Crucially, the starting point is to ensure students who are low attaining and those with SEND receive high quality teaching, as the evidence shows that it is these children who are most disadvantaged by current arrangements. School leaders should not view the process of rethinking their TA workforce as a substitute for addressing the overall provision made for students from disadvantaged backgrounds, students who are low attaining students and those with SEND. The expectation should be that the needs of all students must be addressed, first and foremost, through excellent classroom teaching.

One central issue facing school leaders is to determine the appropriate pedagogical role for TAs, relative to teachers. If the expectation is that TAs have an instructional teaching role it is important they are trained and supported to make this expectation achievable.

There may also be a case for some TAs to have a full or partial role in non-pedagogical activities, such as easing teachers' administrative workload or in meeting students' welfare or pastoral needs. Ultimately, the needs of the students must drive decisions around TA deployment. School leaders and school councils may find the Northern Territory Assistant Teacher Professional Standards helpful in defining the role, purpose and contribution of TAs.[19]

It might be that the roles of some TAs need to change wholly or in part. This is why a thorough audit of current arrangements is advised to define the point from which each school starts, and the goals of reform. The section 'Acting on the evidence' outlines a number of tools and strategies that schools have successfully used to review the use of TAs and develop more effective practices.

2

The effective use of TAs under everyday classroom conditions
Use TAs to supplement what teachers do, not replace them

14

If TAs are to play a direct instructional role, it is important that they supplement, rather than replace, the teacher. Schools can mitigate 'separation effects' by ensuring the students who struggle most have no less time with the teacher than others. Rather than deploy TAs in ways that replace the teacher, TAs can be used to enable teachers to work more with students who are low attaining and those with SEND. Where TAs do work with students individually or in groups, it is essential that they are equipped with the skills to support learning, consistent with the teachers' intentions.

Breaking away from a model of deployment where TAs are assigned to specific students for long periods requires more strategic approaches to classroom organisation, based more around teamwork between teacher and TA. Evidence on the impact of some of these approaches is still developing, nevertheless, the examples below are consistent with the principle of 'supplement, not replace, the teacher':

- Rotating roles – Setting up the classroom in such a way that on day one, the teacher works with one group, the TA with another, and the other groups complete tasks, collaboratively or independently. Then, on day two, the adults and activities rotate, and so on through the week. In this way, all students receive equal time working with the teacher, the TA, each other and under their own direction.

- Make TAs a more visible part of teaching during their whole-class delivery; for example, by using them to scribe answers on the whiteboard, or to demonstrate equipment. This can help the teacher maintain eye contact with the class.

- Using TAs to provide 'teaching triage': roving the classroom and identifying students who are having difficulty with a particular task, and who need further help, and flagging this to the teacher.

- Helping students in their readiness for learning, ensuring they are prepared and focused for the lesson.

- Using TAs to focus on a supplementary whole-class objective. For example, focusing on writing in a secondary science lesson.

Crucially, school leaders should work on developing effective classroom partnerships. A teacher-TA agreement can help staff specify their coordinated but differentiated classroom roles, by identifying the ways TAs might contribute at various stages of a lesson (see 'Supporting resources' for a teacher-TA agreement template).

To drive the development of practice, school leaders should consider a whole-school policy, articulating a shared understanding of TA deployment, preparation and training (see 'Supporting resources' for a policy template for TA deployment, training and use).

3
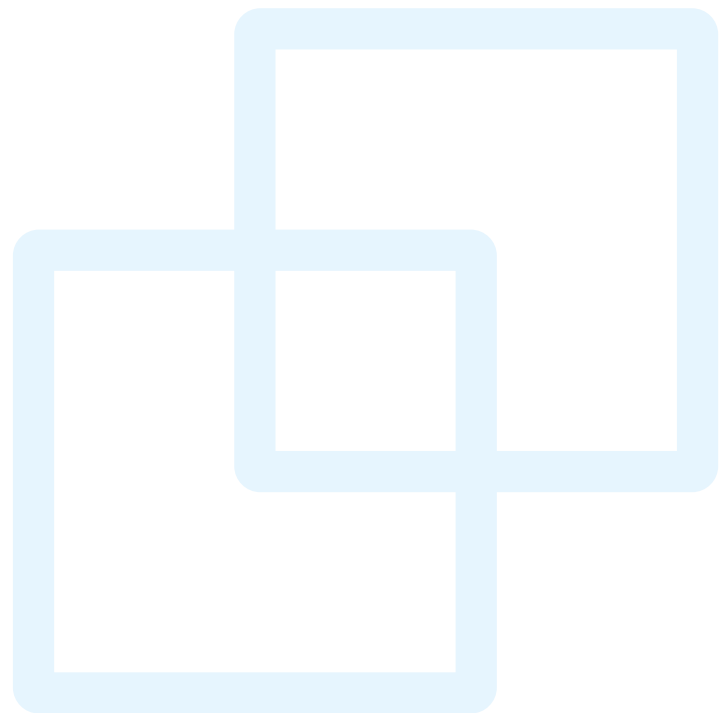
The effective use of TAs under everyday classroom conditions
Use TAs to help students develop independent learning skills and manage their own learning

Schools in the EDTA project explored how TAs can help all students develop essential skills underpinning learning, such as self-scaffolding: encouraging students to ask themselves questions that help them get better at managing their learning. Recent research shows that improving the nature and quality of TAs' talk to students can support the development of independent learning skills[20], which are associated with improved learning outcomes.[2] Figure 1 shows a range of ways in which TAs can inhibit, as well as encourage, students' independent learning skills.

Avoid	Encourage
✗ Prioritising task completion	✓ Students to be comfortable taking risks with their learning
✗ Not allowing students enough thinking and response time	✓ Providing the right amount of support at the right time
✗ 'Stereo-teaching' (repeating verbatim what the teacher says)	✓ Students retaining responsibility for their learning
✗ High use of closed questions	✓ Use of open ended questions
✗ Over-prompting and spoon-feeding	✓ Giving the least amount of help first to support students' ownership of the task

Figure 1. TA teaching strategies that encourage and inhibit independent learning

The practical framework shown in Figure 2 is designed to help <u>TAs scaffold students' learning and encourage independence</u>.[21] TAs should move down the layers in turn. The initial expectation is that students self-scaffold whilst the TA observes their performance. TAs should then intervene appropriately when students demonstrate they are unable to proceed.

It is important the tasks set by teachers, and supported by TAs, provide students with the right level of challenge.
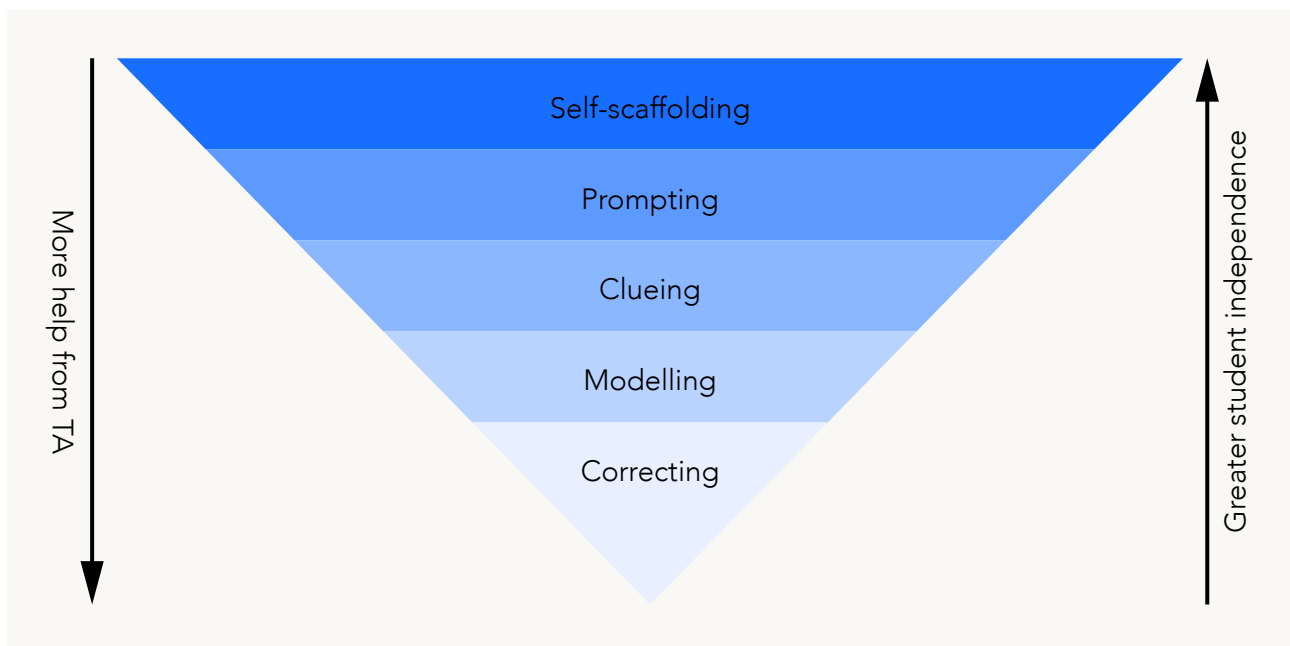
Figure 2. Scaffolding framework for teaching assistant-student interactions

4 The effective use of TAs under everyday classroom conditions

Ensure TAs are fully prepared for their role in the classroom

Finding extra time within schools is, of course, never easy. Nevertheless, without adequate out-of-class liaison it is difficult for teachers and TAs to work in the complementary way described above.

Schools that participated in the EDTA project, and those that have undertaken the MITA program, have found creative ways to ensure teachers and TAs had time to meet, improving the quality of lesson preparation and feedback.[19] For example, principals changed TAs' hours of work so that they started and finished their day earlier, thereby creating essential liaison time before school. Table 1 summarises a range of strategies that schools have used to enable teacher–TA liaison out of class, as well as some key 'need to knows' for TAs in advance of lessons.

The preparedness of TAs also relates to their ongoing training and professional development. If a specific pedagogy is being used, such as formative assessment or cooperative learning, TAs should be trained so they fully understand the principles of the approach and the techniques required to apply it.

Training should also be provided for teachers on how to maximise the use of TAs in the classroom.

Teacher-TA liaison	Ensure TAs have the lesson plan 'need to knows' in advance
• Adjust TA's working hours: start early, finish early	• Concepts, facts, information being taught
• Timetabling: use assembly time	• Skills to be learned, applied, practised or extended
• TAs join teachers for (part of) planning time	• Intended learning outcomes
• Leadership team set expectations for how liaison time is used	• Expected/required feedback

Table 1. Changes made by schools to help TA preparedness

Box 1. Evidence summary

What evidence is there on the use of TAs in everyday classroom contexts?

Much of the research investigating the use of TAs in everyday classroom environments is small-scale and describes what TAs do in the classroom. Almost all of it has some focus on how TAs facilitate the inclusion of children and young people with SEND.[22,23,24,25] Early research looked at teamwork between teachers and other adults, such as parent-helpers and TAs[26,27], and led to a useful collaborative study with schools on alternative ways of organising classrooms.[28] Both the qualitative and quantitative work on impact relies principally on impressionistic data from school staff.

Findings from large-scale systematic analyses investigating the effects of TAs on learning outcomes challenge the assumption that there are unqualified benefits from TA support. Experimental studies are rare, but one in the USA found no differences in the outcomes for students in classes with TAs present.[5] Longitudinal research in the UK has produced similar results.[16] There are very few randomised control trials that investigate the impact of TAs in everyday classrooms, but two conducted in Denmark have found mixed effects.[29] However, there were insufficient data on school leaders' decision-making and classroom practices, meaning it is difficult to conclude what drove the effects.

Secondary analyses of school expenditure have suggested the expenditure on TAs is positively correlated with improved academic outcomes.[30,31,32] However, these analyses of TA impact do not adequately rule out the possibility that other school factors might explain the correlations found, and the conclusions drawn are not supported by the evidence collected; in particular they do not include data on what actually happens in classrooms.

The evidence on the impact of TAs on non-academic outcomes (including well-being) is thin and largely based on impressionistic data. The balance between TAs' contribution to academic and non-academic outcomes needs more attention, but there are concerns that TAs can encourage dependency, because they prioritise task completion rather than encouraging students to think for themselves.[3] Evidence shows that over-reliance on one-to-one TA support leads to a wide range of detrimental effects on students, in terms of interference with ownership and responsibility for learning, and separation from classmates.[10,12,13]

The largest and most in-depth study ever carried out on the use and impact of TA support in everyday classroom environments is the multi-method DISS project.[3] Unlike other studies, it linked what TAs do in classrooms to effects on student progress. Researchers critically examined the relationship between TA support and the academic progress of 8,200 students, and put forward a coherent explanation for the negative relationship found on the basis of careful analyses of multiple forms of data collected in classrooms (see the section 'What is the impact of TAs on student's academic attainment?'). The findings have been referred to throughout this guidance.

Since then, there has been good observational evidence from the EDTA project demonstrating the positive impact on school and classroom processes made as a result of making changes consistent with the recommendations outlined in this guide.[20] The underlying model has been subjected to extensive professional validation through collaborative work with schools via the Maximising the Impact of Teaching Assistants (MITA) school improvement and professional learning program. The EEF is currently funding an independent evaluation of MITA to test the extent to which reforming TA deployment, practice and preparation in everyday classrooms can improve student attainment and engagement.

Literature reviews by Sharma and Salend (2016) and Masdeu Navarro (2015) provide good overviews of the international evidence on the roles and impact of teaching assistants.[26,30]

The effective use of TAs in delivering structured interventions out of class
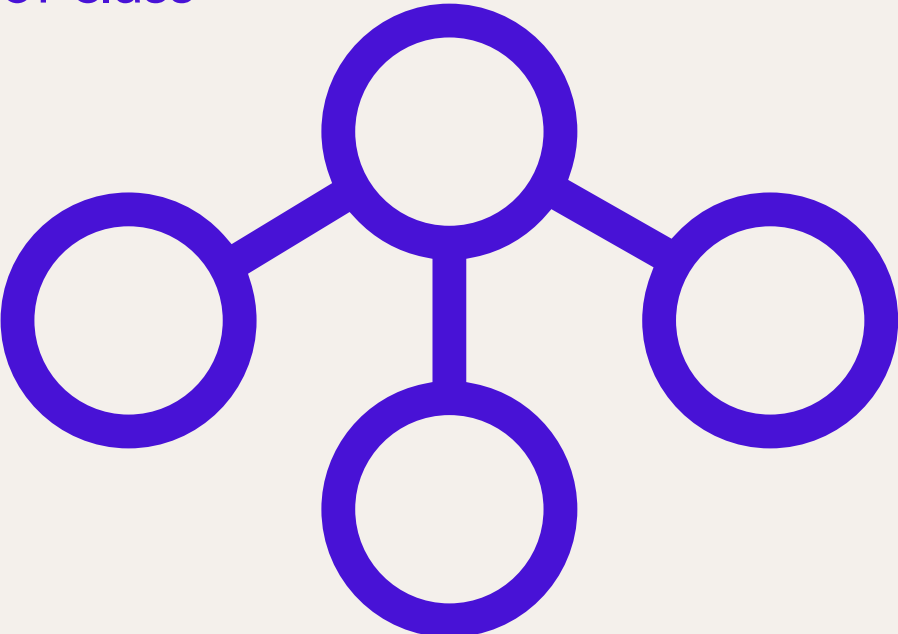
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The effective use of TAs in delivering structured interventions out of class
Use TAs to deliver high quality one-to-one and small group support using structured interventions

What is the impact of using TAs to provide one-to-one or small group intensive support using structured interventions?

The area of research showing the strongest evidence for TAs having a positive impact on student attainment focuses on their role in delivering structured interventions in one-to-one or small group settings.

This research shows a consistent impact on attainment of approximately three to four additional months' progress over an academic year (effect size 0.2–0.3).[2,32,33] This can be seen as a moderate effect.

Crucially, these positive effects are only observed when TAs work in structured settings with high-quality support and training. When TAs are used in more informal, unsupported instructional roles, we see little or no impact on student outcomes (see the section 'What is the impact of TAs on students' academic attainment?').[3] This suggests that schools should use a small number of carefully chosen and well structured interventions, with reliable evidence of effectiveness. The aim should be to complement the overall teaching and learning objectives and minimise the time students spend away from the classroom. Characteristics of effective interventions are discussed on the next page Recommendation 6.

How does this compare with other forms of intensive instructional support?

The average impact of TAs delivering structured interventions is, perhaps unsurprisingly, less than that for interventions using experienced qualified teachers, which typically provide around six additional months' progress per year.[2] However, these teacher-led interventions tend to be expensive, requiring additional, and often specialist, staff. TA-led interventions typically produce better outcomes than volunteers when delivering interventions (typically one to two months' additional progress), although both these groups benefit significantly from training and ongoing coaching.[32,33] Further information on the research conducted on TA-led interventions is available in Box 2.

The positive effects seen for TAs delivering structured interventions challenges the idea that only certified teachers can provide effective one-to-one or small group support.

Conduct an interventions 'health check'

When considering the use of TAs to deliver structured interventions it is important to think about which intervention is being used and how it is being delivered. One thing you might consider is conducting an interventions 'health check'.

Useful questions to ask include:

- Are you using evidence-based interventions? If so, are they being used as intended, with the appropriate guidance and training?

- Is appropriate planning provided for timetabling out-of-class sessions so TAs complement classroom teaching?

- What does your data show for those students involved in intervention work? Is it in line with the expected progress from the research and/or provided by the program developer?

- Do your findings suggest that training for TAs (and teachers) needs to be refreshed?

- How effective are TAs and teachers in reviewing work taking place in intervention sessions and are links being made with general classroom work?

- Is there designated time for teacher/TA liaison?
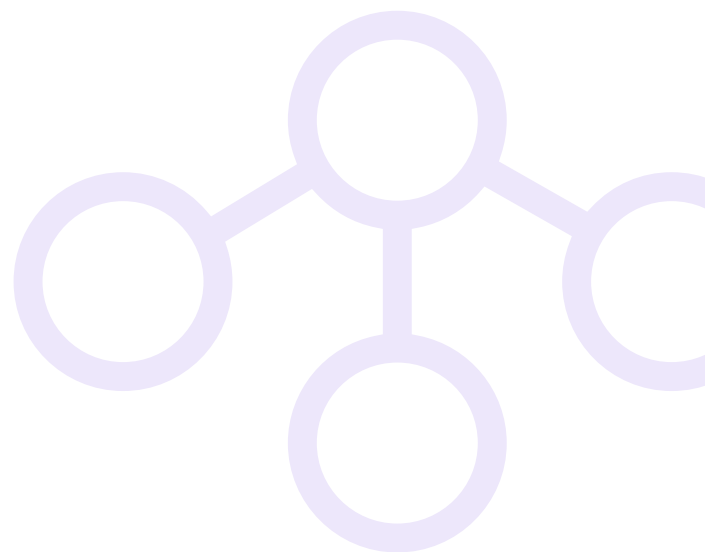
6 The effective use of TAs in delivering structured interventions out of class
Adopt evidence-based interventions to support TAs in their small group and one-to-one instruction

When considering the use of TAs to deliver structured interventions it is important to think about which intervention program is being used and how it is being delivered. As discussed, the key difference between effective and less effective TA-led interventions is the amount and type of training, coaching and support provided by the school. In this sense, evidence-based interventions provide a means of aiding consistent and high-quality delivery.

At present there are relatively few programs in the Australia for which there is secure evidence of effectiveness and no published Australasian research has examined the impact of TAs on academic outcomes. If your school is using, or considering, programs that are 'unproven', ensure they include the common elements of effective interventions:

- Sessions are often brief (15–45 minutes), occur regularly (3–5 times per week) and are maintained over a sustained period (8–20 weeks). Careful timetabling is in place to enable consistent delivery;

- TAs receive extensive training from experienced trainers and/or teachers (5–30 hours per intervention);

- The intervention has structured supporting resources and lesson plans, with clear objectives and possibly a delivery script;

- Ensure there is fidelity to the program and do not depart from suggested delivery protocols. If it says deliver every other day for 30 minutes to groups of no more than four students, do this;

- Likewise, ensure TAs closely follow the plan and structure of the intervention, and use delivery scripts;

- Assessments are used to identify appropriate students, guide areas for focus and track student progress. Effective interventions ensure the right support is being provided to the right child;

- Connections are made between the out of-class learning in the intervention and classroom teaching (see Recommendation 7).

- Examples of evidence-based interventions available in the UK include Catch Up Numeracy, Catch Up Literacy, Reading Intervention Programme, Talk for Literacy, Nuffield Early Language Intervention, ABRA, 1stClass@Number and Switch-on Reading (see Box 2). Details of all EEF projects involving TA-led interventions, including the latest evaluation findings, can be found at the EEF website: educationendowmentfoundation.org.uk/projects-and-evaluation/projects

- Few Australian studies have examined the impact of specific interventions which are delivered via one to one tuition interventions, often part of a TA's role.[7]

Box 2. Evidence Summary

What research has been conducted on TAs delivering small group and one-to-one interventions?

The research investigating TAs delivering interventions is small but growing: in the Teaching & Learning Toolkit, there are 28 studies referenced. Most of these studies are small scale, typically involving 30 to 200 students, and only 15 studies can be expressed by an effect size.[3] The majority of this research has been conducted internationally;[32,33] with emerging findings from the UK evaluations being consistent with the Australian and international picture. More research has been conducted on literacy interventions than for maths, although positive impacts are observed for both.

Although the majority of TA-delivered interventions showing positive effects involve one-to-one instruction, small group approaches also show promise, with similar impacts observed compared to one-to-one interventions. Although further research is needed, this suggests it may be worth exploring small group interventions as a cost-effective alternative to delivery on a one-to-one basis.

An additional area for investigation is the long-term impact of TA-delivered interventions. Studies showing positive impacts on learning outcomes tend to measure learning outcomes soon after the end of the intervention. We know less about how those immediate improvements translate into long-term learning and performance on national tests. This is particularly relevant given that students' learning in interventions is not regularly connected to the wider curriculum and learning in the classroom (see Recommendation 7). Encouragingly, a recent evaluation of ABRA in the UK, a 20-week literacy program delivered by trained TAs to small groups of students in Years 1 and 2, showed those students who participated in the program continued to do better than their comparison-group peers a year after the intervention finished (as measured by testing completed at the end of that stage of schooling).

Integrating learning from everyday classroom contexts and structured interventions

"The key is for TAs to give the least amount of help first"

7 Integrating learning from everyday classroom contexts and structured interventions
Ensure explicit connections are made between learning from everyday classroom teaching and structured interventions

Training TAs for specific interventions does not, on its own, provide an answer to the ineffective way in which TAs have been found to be deployed in schools. Previous research has indicated concern over the extent to which learning via a structured intervention is related to the students' broader experiences of the curriculum.

Interventions are often quite separate from classroom activities and the lack of time for teachers and TAs to liaise means there is relatively little connection between what students experience in and away from the classroom. This means it can be left to the student to make links between the coverage of the intervention and the wider curriculum coverage back in the classroom. Given that supported students are usually those who find accessing learning difficult in the first place, this presents a huge additional challenge.

The integration of the specific intervention with the mainstream curriculum is therefore vital.

Students are typically withdrawn from class for interventions, so it should be a prerequisite of any TA-led program that it at least compensates for time spent away from the teacher. Crucially, this does not mean that we should pile the responsibility for students making accelerated progress onto TAs.

Australian jurisdictions have differing policies and legislation on the work of TAs, an example is the Victorian Government Schools Agreement[34] which outlines that 'supervision of students cannot be required except where it is an integral part of the employee's position or involves supervision of students individually or in small groups, in controlled circumstances, where the responsibility for students remains clearly with a teacher'. School leaders should ensure they are well versed in the relevant guidelines in order to support the effective use of TAs within relevant constraints.

Box 3: Teaching Assistants leading Structured Intervention

At one senior high school in Australia, Teaching Assistants (TAs) have been deployed strategically to increase the number of Year 7 students who are able to access targeted literacy interventions.

Data indicated that some students in the Year 7 cohort were not meeting the expected standard in English. Sarah, the Head of English, recognised the need to improve these students' literacy by focusing on the essential components of the reading process. An evidence-based program was chosen, based upon criteria associated with programs most likely to achieve successful outcomes (such as the program being delivered through the use of a script to ensure fidelity.)

Within the school, TAs were invited to apply to be a part of delivering the intervention. Successful applicants received extensive training in order to develop their capabilities and to build their understanding of the fundamentals of the program. Jane is one of the TAs to undergo the intervention training. Jane's training involved:

- a two-day professional development course
- observing a teacher delivering the program to students
- coaching from a teacher, who observed Jane delivering the intervention and provided feedback.

Once Jane gained the necessary skills and confidence, she took responsibility for delivering the intervention to groups of students.

School structures have been designed to ensure that Jane is given planning time to maintain contact with the teachers and Sarah. Through emails and face-to-face time, Jane and teachers regularly discuss the students' progress and next steps in order to inform what is happening in the classroom. This communication between teacher and TA ensures that students transition effectively between the intervention and their classroom setting.

Sarah notes that: "If we'd chosen to use just the qualified teachers, we would only be in a position to run perhaps two structured intervention programs. In using TAs, we can access five different groups of students." Jane notes how fantastic it is to see both the confidence in students increasing and the data indicating a positive impact on learning.

Acting on the evidence

The evidence on effective TA deployment, training and use can be summarised in one clear principle – 'Use TAs to supplement what teachers do, not replace them' (Recommendation 2). The remaining recommendations in this guide are either exemplifications of that principle (e.g. the careful use of TA-led interventions) or ways of achieving it (e.g. ensuring TAs and teachers understand their complementary roles). The evidence therefore is relatively straightforward. At the same time, there are also clear benefits to schools reframing the way TAs are used, in terms of student outcomes, school outcomes and overall staff satisfaction and morale (see 'Ten reasons to improve the use of Teaching Assistants').

Our learning is drawn from the experiences of our UK partner, the EEF. Their work with schools in improving the way TAs are trained and deployed, suggests that making those changes is not straightforward. It can be a complex process, requiring changes across the school (senior leadership, middle leadership, teachers, TAs), addressing existing ways of working, training at all levels, and sometimes structural changes in terms of timetabling and working arrangements. Encouragingly, schools that overcome practical barriers to change do so by investing time, attention and effort into making improvements – not by spending lots of money.

Evidence for Learning has produced a Guidance Report 'Putting Evidence to Work: A School's Guide to Implementation' which can be used as a guide as you plan to implement changes. Figure 3 provides an overview of the implementation process which schools can apply to any implementation challenge.

The stages of implementation

Foundations for good implementation

✓ Treat implementation as a process, not an event. Plan and execute it in stages.

✓ Create a leadership environment and school climate that is conducive to good implementation.

Implementation process begins

Treat scale-up as a new implementation process

Identify a key priority that is amenable to change

Continually acknowledge, support, and reward good implementation practices

Systematically explore programmes or practices to implement

Plan for sustaining and scaling the intervention from the outset

Examine the fit and feasibility with the school context

Sustain

Explore

Stable use of the approach

Adoption decision

Use implementation data to drive faithful adoption and intelligent adaption

Deliver

Prepare

Develop a clear, logical and well specified plan

Not ready

Reinforce initial training with follow-on support within the school

Assess the readiness of the school to deliver the implementation plan

Ready

Support staff and solve problems using a flexible leadership approach

Practically prepare e.g. train staff, develop infrastructure

Delivery begins

Figure 3: Implementation can be described as a series of stages relating to thinking about, preparing for, delivering, and sustaining change.

Developmental work with schools has revealed a number of key principals to successfully take on the recommendations in this guide.[19,34] We have expressed these as questions to prompt reflection, aligned to The Stages of Implementation detailed on the previous page. These stages are explored further in our Guidance Report 'Putting Evidence to Work: A School's Guide to Implementation'.

Foundations for good implementation

Checklist questions

✓ Have the school leadership team created a clear vision and understanding of expectations about the change that is desired?

✓ Is the principal leading a small development team responsible for managing the changes?

Explore

Checklist questions

✓ Has an audit* of the current use of TAs been conducted?

✓ Has the leadership team clearly communicated the purpose and goals of the audit process?

✓ Have you explored the evidence available and considered its feasibility in your context?

*An audit could include activities such as completing the self-assessment guide, surveying staff anonymously, conducting observations, a skills audit and wider community consultation.

Prepare

Checklist questions

✓ Does the school leadership have a logical action plan?

✓ Does everyone involved have a shared understanding of the action plan?

✓ Have you scheduled time regularly, which is quarantined for the development team to discuss and plan?

✓ Have you developed a plan to capture feedback on the process?

🌱 Deliver

Checklist questions

✓ Have TAs and Teachers involved been supported with appropriate training up front?

✓ Do you have a plan to roll out changes gradually, beginning with an initial team to test the new approach at a small scale?

✓ Do TAs and Teachers have scheduled time to work together outside of the classroom?

✓ Have you used the data collected to adapt the approach?

💧 Sustain

Checklist questions

✓ Have you developed a plan for the ongoing training of TAs and Teachers?

✓ Do you have a plan to scale the new approach that was tested?

Supporting resources

A set of free practical Australian resources are being developed by Evidence for Learning to help schools implement the recommendations in this Guidance Report.

The resources below either relate to specific recommendations in this report, or to different stages in Figure 3. These resources below will be updated as they are released for Australia.

Resources relating to the 'Acting on the evidence' school improvement process

Visioning exercise – Create a clear vision for your TA workforce. Define what great TA deployment and practice will look like in your school.

A self-assessment guide – Assess current practice and monitor progress against the report's recommendations using the Red Amber Green (RAG) ratings.

Online audit surveys – Survey teachers, TAs and senior leaders anonymously for their perspectives on your school's current use of TAs.

TA observation schedule – Collect data to aid your understanding of how TAs are deployed in classrooms across the school.

Action planning template – Structure your thinking around reframing the use of TAs, and develop action plan points to realise your vision.

TA policy template – Create a policy articulating a shared understanding of TA deployment, use and training in your school.

Resources relating to recommendations in the Guidance Report

Recommendations 1 and 2 – Deployment of TAs in classrooms

Teacher-TA agreement template – Support staff to develop and specify their coordinated, but differentiated, roles during lessons.

Recommendation 3 – TAs' interactions with students

Scaffolding framework – Help TAs scaffold students' learning and encourage independent learning.

Recommendations 5, 6 and 7 – TAs delivering targeted, structured interventions

Interventions health check – Consider how TA-led interventions are being delivered in your school in line with the research.

Evidence-based TA-led literacy and numeracy intervention – Adopt evidence-based TA-led interventions that have previously been shown to impact positively on student attainment.

Further reading

Australian Teacher Aide (ATA) provides online professional development designed to promote effective teacher aide practices, and improve teacher aide agency.

ATA's foundation program, Effective Teacher Aide Practices for Schools (eTAPS), can be used to support teacher and TA collaboration leading to improved student learning and wellbeing.

Schools can access online professional learning, customised to the education support role, on the ATA website. Resources include a professional development library, live web events, and a professional learning community for members. ATA also provides information to help TAs understand their role and responsibilities, including links to workplace information for each Australian state:

australianteacheraide.com.au/

Evidence for Learning highlights the international research available on Teaching Assistants as one approach within the Teaching & Learning Toolkit:

evidenceforlearning.org.au/teaching-and-learning-toolkit/teaching-assistants/

Evidence for Learning collaborated with Melbourne Graduate School of Education to develop the Australasian research to support the contextualisation of international research.

evidenceforlearning.org.au/the-toolkits/the-teaching-and-learning-toolkit/australasian-research-summaries/teaching-assistants

Maximising the Impact of Teaching Assistants (MITA) website contains resources and tools to help schools review practice and implement the recommendations in this Guidance Report, including the Teaching Assistant Deployment Review Guide, which school leaders can use to evaluate their current practices and processes against the best available research evidence, and a Guide to Useful Online Resources, which signposts free online resources to support decision-making and practice. The MITA website also contains details of courses and training, and downloadable papers and articles on the extensive research conducted at the UCL Institute of Education, London.

maximisingtas.co.uk

How was this guide compiled?

This guide adopts a 'mixed methods' approach, drawing on both quantitative and qualitative research investigating TA deployment and use. The emphasis is on where there is reliable evidence of an impact on student learning outcomes – based on quantitative evaluations – although we also consider the wider research context on TAs, incorporating a range of qualitative studies. The intention is to provide a reliable foundation of 'what works', based on robust evidence and looking retrospectively, but also to provide a broad overview of the emerging research understanding (although not necessarily 'proven') and look prospectively at where the field is heading.

The primary source of evidence is the Teaching & Learning Toolkit, based on meta-analyses of evaluations of educational interventions developed by Prof. Steve Higgins and colleagues at the University of Durham, with the support of the Sutton Trust and the EEF.[2] The Toolkit approach of Teaching Assistants includes the widely referenced DISS study.[3] Findings are triangulated with other reviews of quantitative evaluations of TA led interventions, such as the Best Evidence Encyclopedia (BEE) reviews on Struggling Reading[35] and Primary Reading.

Meta-analysis is a method of combining the findings of similar studies to provide a combined quantitative synthesis or overall 'pooled estimate of effect'. The results of, say, interventions seeking to improve lower-attaining students' learning in mathematics can be combined so as to identify clearer conclusions about which interventions work and what factors are associated with more effective approaches. The advantages of meta-analysis over other approaches to reviewing are that it combines, or 'pools' estimates from a range of studies and should therefore produce more widely applicable or more generalisable results.

The Toolkit adopts a 'confidence approach' when reviewing evidence – How much is there? How reliable is it? How consistent are the findings? In addition to summarising on 'what works' the Toolkit also explores 'how', 'why' and 'in what contexts' approaches have an impact. Full details of the method used to produce the Teaching & Learning Toolkit – including search criteria, effect size/months' progress estimate and quality assessment – are available at: evidenceforlearning.org.au/the-toolkits/about/ and educationendowmentfoundation.org.uk/public/files/Toolkit/Toolkit_Manual_2018.pdf

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MAKING BEST USE OF
TEACHING ASSISTANTS

Guidance Report

About the authors:

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CONTENTS

The effective use of TAs under everyday classroom conditions

The effective use of TAs in delivering structured interventions out of class

Integrating learning from everyday classroom contexts and structured interventions

INTRODUCTION

What is this guidance for?

This EEF Guidance Report is designed to provide practical, evidence-based guidance to help primary and secondary schools make the best use of teaching assistants* (TAs). It contains seven recommendations, based on the latest research examining the use of TAs in classrooms.

The guidance draws predominately on studies that feed into the [Teaching and Learning Toolkit](#), produced by the Education Endowment Foundation in collaboration with the Sutton Trust and Durham University.[1] Key studies include new findings from EEF-funded evaluations and a programme of research from UCL Institute of Education.[2] As such, it is not a new study in itself, but rather is intended as an accessible overview of existing research with clear, actionable guidance. Although the evidence base is still developing around TAs, there is an emerging picture from the research about how best to deploy, train and support them to improve learning outcomes for pupils.

The guidance begins by summarising the way in which TAs are typically used in English schools, with 'key findings' drawn from the latest research. This is followed by seven recommendations to guide schools in maximising the impact of TAs. These are arranged in three sections: a) recommendations on the use of TAs in everyday classroom contexts; b) recommendations on TAs delivering structured interventions out of class; and c) recommendations in linking learning in everyday classroom contexts and structured interventions. Each of the recommendations contains information on the relevant research and the implications for practice. At the end of the guidance there are some ideas and strategies on how schools might act on the evidence.

As well as presenting a snapshot of the current evidence, the report also highlights where further research is needed (see Boxes 1 and 3). Details of the approach used to develop the guidance are available in the section ['How has this guidance been compiled?'](#)

Who is this guidance for?

This guidance is aimed primarily at headteachers and other members of the Senior Leadership Team (SLT) in both primary and secondary schools. Research suggests that rethinking the role of TAs is much more likely to be successful if senior leaders coordinate action, given their responsibility for managing change at school level and making decisions on staff employment and deployment. As Special Educational Needs Coordinators (SENCos) often play an important role in coordinating TAs, it is recommended they are included in this process. School governors should also find the guidance helpful in supporting the SLT with the deployment of staff and resources across the school. While the guidance draws primarily on research conducted in mainstream settings, it is anticipated that it will also be relevant to special schools, alternative provisions and pupil referral units.

Class teachers should also find this guidance useful, as they have the day-to-day responsibility for deciding how to make the most effective use of the TAs with whom they work. Finally, although this guidance is not specifically intended for TAs it is hoped they will also find it of relevance and interest, given they are often directly involved in the change process.

Using this guidance

This guidance highlights the need for careful planning when rethinking the use of TAs, taking into account the local context as well as the wider evidence base. There is no 'one size fits all' solution; as a school, you will need to arrive at solutions that draw on the research and apply them appropriately within your context. At the same time, it is important to consider the recommendations carefully and how faithfully and consistently they are applied in your school.

Inevitably, change takes time, and we recommend taking at least two terms to plan, develop and pilot strategies on a small scale at first, before rolling out new practices across the school. Gather support for change across the school and set aside regular time throughout the year to focus on this project and review progress.

The section 'Acting on the Evidence', suggests a range of strategies and tools that you might find helpful in planning, structuring and delivering a whole-school approach to improving the use of teaching assistants.

The rise and rise of TAs

While the number of teachers in mainstream schools in England has remained relatively steady over the last decade or so, the number of full-time equivalent TAs has more than trebled since 2000: from 79,000 to 243,700.[3]

Teaching assistants comprise over a quarter of the workforce in mainstream schools in England: 35% of the primary workforce, and 14% of the secondary school workforce. The number of full-time equivalent TAs has more than trebled since 2000: from 79,000 to 262,800. On the basis of headcount data, there are currently more TAs in English nursery and primary schools than teachers: 273,200 vs. 248,900.** About 7% of TAs in state-funded schools have higher-level teaching assistant (HLTA) status.

A key reason for increasing the number of TAs was to help deal with problems with teacher workloads. In 2003, the government introduced The National Agreement to help raise pupil standards and tackle excessive teacher workload, in large part via new and expanded support roles and responsibilities for TAs and other support staff.

The growth in the numbers of TAs has also been driven by the push for greater inclusion of pupils with special educational needs and disabilities (SEND) into mainstream schools, with TAs often providing the key means by which inclusion is facilitated. Given that SEN pupils and low-attaining pupils are more likely to claim Free School Meals (FSM).*** TAs also work more closely with pupils from low-income backgrounds. Indeed, expenditure on TAs is one of the most common uses of the Pupil Premium in primary schools, a government initiative that assigns funding to schools in proportion to the number of pupils on FSM.[4]

A combination of these factors means that schools now spend approximately £4.4 billion each year on TAs, corresponding to 13% of the education budget. This presents an excellent opportunity for improvements in practice, with such a large and already committed resource in place. The recommendations in this guidance recognise the fact that schools are operating within already tight budgets; however, noticeable improvements in pupil outcomes can be made through the thoughtful use of existing resources, without significant additional expenditure.

> *"While the proportion of teachers in mainstream schools in England has remained relatively steady over the last decade or so, the proportion of full-time equivalent TAs has more than trebled since 2000: from 79,000 to 243,700."*

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* In line with common usage, we use the term 'teaching assistant' (TA) to cover equivalent classroom- and pupil-based paraprofessional roles, such as 'learning support assistant' and 'classroom assistant'. We also include 'higher level teaching assistants' in this definition.

** In secondary schools, the headcount ratio is roughly one TA to every four teachers. The size of the workforce can be explained by the fact that 90% of nursery/primary TAs work part-time, compared to 27% of teachers.

*** 30% of pupils with special educational needs also claim Free School Meals.

WHAT IS THE TYPICAL IMPACT OF TAS IN SCHOOLS?

What is the impact of TAs on pupils' academic attainment?

Key finding

The typical deployment and use of TAs, under everyday conditions, is not leading to improvements in academic outcomes

The largest and most detailed study investigating the deployment and impact of TAs in schools to date is the Deployment and Impact of Support Staff (DISS) project, conducted between 2003 and 2008 in UK schools.[2] The analysis studied the effects of the amount of TA support – based on teacher estimates of TA support and systematic observations – on 8,200 pupils' academic progress in English, mathematics and science. Two cohorts of pupils in seven age groups in mainstream schools were tracked over one year each. Other factors known to affect progress (and the allocation of TA support) were taken into account in the analysis, including pupils' SEN status, prior attainment, eligibility for Free School Meals, English as an Additional Language and deprivation.

The results were striking: 16 of the 21 results were in a negative direction and there were no positive effects of TA support for any subject or for any year group. Those pupils receiving the most support from TAs made less progress than similar pupils who received little or no support from TAs. There was also evidence that the negative impact was most marked for pupils with the highest levels of SEN, who, as discussed, typically receive the most TA support.

Other research exploring the impact of TAs in everyday classroom contexts supports these findings. In the US, evidence from the Tennessee Student Teacher Achievement Ratio (STAR) project found there was no beneficial effect on pupil attainment of having a 'teacher aide' in kindergarten to Grade 3 classes (equivalent of Years 1–4).[5] In other UK studies, pupils with SEN assigned to TAs for support have been shown to make less progress than their unsupported peers, in both literacy and maths.[6,7]

As we shall see, there is good emerging evidence that TAs can provide noticeable improvements to pupil attainment. Here, TAs are working well alongside teachers in providing excellent supplementary learning support. However, importantly, this is happening inconsistently across classrooms and schools.

While the DISS project results were reported in 2009, evidence from the Making a Statement (MAST) and SEN in Secondary Education (SENSE) studies, conducted between 2011 and 2017, and which focussed on the day-to-day educational experiences of pupils with SEND, suggest the deployment of TAs has not changed substantially since.

An independent evaluation is currently underway of Maximising the Impact of TAs (MITA), a whole-school programme designed to improve the areas of decision-making and classroom practice that explain the impact findings identified through the DISS project.

What is the impact of TAs on pupil behaviour, motivation and approaches to learning?

Key finding

There is mixed evidence to support the view that TA support has a positive impact on 'soft' outcomes. Some evidence suggests TA support may increase dependency

Teachers report that assigning TAs to particular pupils for individual support – usually those with difficulties connected to learning, behaviour or attention – helps them develop confidence and motivation, good working habits and the willingness to finish a task.[2] Other research has identified the benefits of TAs more in terms of the range of learning experiences provided and the effects on pupil motivation, confidence and self-esteem, and less in terms of pupil progress.[8]

On the other hand, there are concerns that TAs can encourage dependency, because they prioritise task completion, rather than encouraging pupils to think and act for themselves.[9] Taken further, it has been argued that over-reliance on one-to-one support leads to a wide range of detrimental effects on pupils, in terms of interference with ownership and responsibility for learning, and separation from classmates.[10]

The DISS project examined the effect of the amount of TA support on eight scales representing 'Positive Approaches to Learning' (PAL): distractibility; task confidence; motivation; disruptiveness; independence; relationships with other pupils; completion of assigned work; and following instructions from adults. The results showed little evidence that the amount of support pupils received from TAs over a school year improved these dimensions, except for those in Year 9 (13–14-year-olds), where there was a clear positive effect of TA support across all eight PAL outcomes.

Nevertheless, the evidence on the impact of TAs on non-academic outcomes is thin and based largely on impressionistic data. This balance between a TA's contribution to academic and non-academic outcomes needs more attention.

What is the impact of TAs on teachers and learning?

Key finding

TAs help ease workload and stress, reduce classroom disruption and allow teachers more time to teach

Although the effects of TAs on pupils' academic learning are worrying, it is worth noting that there is good evidence that delegating routine administrative tasks to TAs frees teachers up to focus more time on the core functions of teaching – such as planning, assessment and time spent in class.[2,11] Benefits are also found in terms of reducing workload and improving teachers' perceptions of stress and job satisfaction.[2]

Teachers are largely positive about the contribution of TAs in classrooms, reporting that increased attention and support for learning for those pupils who struggle most has a direct impact on their learning, and an indirect effect on the learning of the rest of the class.[2] Results from observations made as part of the DISS project confirm teachers' views that TAs had a positive effect in terms of reducing disruption and allowing more time for teachers to teach.[2]

HOW ARE TAs CURRENTLY BEING USED IN SCHOOLS?
EXPLAINING THE EFFECTS OF TA SUPPORT ON LEARNING OUTCOMES

In order to understand the impact of TAs on pupils' learning outcomes it is important to look at how they are currently being used in schools.

The DISS project revealed ambiguity and variation in the way TAs are used both within and between schools. In one sense TAs can help pupils indirectly, by assisting the school to enhance teaching (e.g. by taking on teachers' administrative duties), but as we shall see, many TAs also have a direct teaching role, interacting daily with pupils (mainly those with learning and behavioural needs), supplementing teacher input and providing one-to-one and small group support.

Simply put, research suggests it is the decisions made about TAs by school leaders and teachers, not decisions made by TAs, that best explain the effects of TA support in the classroom on pupil progress. In other words, don't blame TAs!

Key finding

TAs spend the majority of their time in an informal instructional role supporting pupils with most need

Key finding

Support from TAs tends to be more focussed on task completion and less concerned with developing understanding

A striking finding from the DISS study was the observation that the majority of TAs spent most of their time working in a direct, but informal, instructional role with pupils on a small group and one-to-one basis (both inside and outside of the classroom). Results were also clear about which pupils TAs worked with. TA support was principally for pupils failing to make expected levels of progress, or those identified as having SEND. TAs hardly ever supported average or higher attaining pupils.

Although this arrangement is often seen as beneficial for the pupils and the teacher – because the pupils in need receive more attention, while the teacher can concentrate on the rest of the class – the consequence of this arrangement is a 'separation' effect. As a result of high amounts of (sometimes, near-constant) TA support, pupils with the highest level of SEND spend less time in whole-class teaching, less time with the teacher, and have fewer opportunities for peer interaction, compared with non-SEND pupils.[12,13]

The net result of this deployment is that TAs in mainstream schools regularly adopt the status of 'primary educator' for pupils in most need.

Previous studies have suggested a number of positive features regarding the nature and quality of TAs' interactions with pupils: interactions are less formal and more personalised than teacher to-pupil talk; they aid pupil engagement; help to keep them on-task; and allow access to immediate support and differentiation.[14] However, other research has highlighted the unintended consequences of high amounts of TA support (see previous section).[10]

Evidence from classroom recordings made during the DISS project revealed that the quality of instruction pupils received from TAs was markedly lower compared to that provided by the teacher. TAs tended to close talk down and 'spoon-feed' answers.[14,15] Over time, this can limit understanding, weaken pupils' sense of control over their learning and reduce their capacity to develop independent learning skills. As pupils 'outsource' their learning to TAs, they develop a 'learned helplessness'.
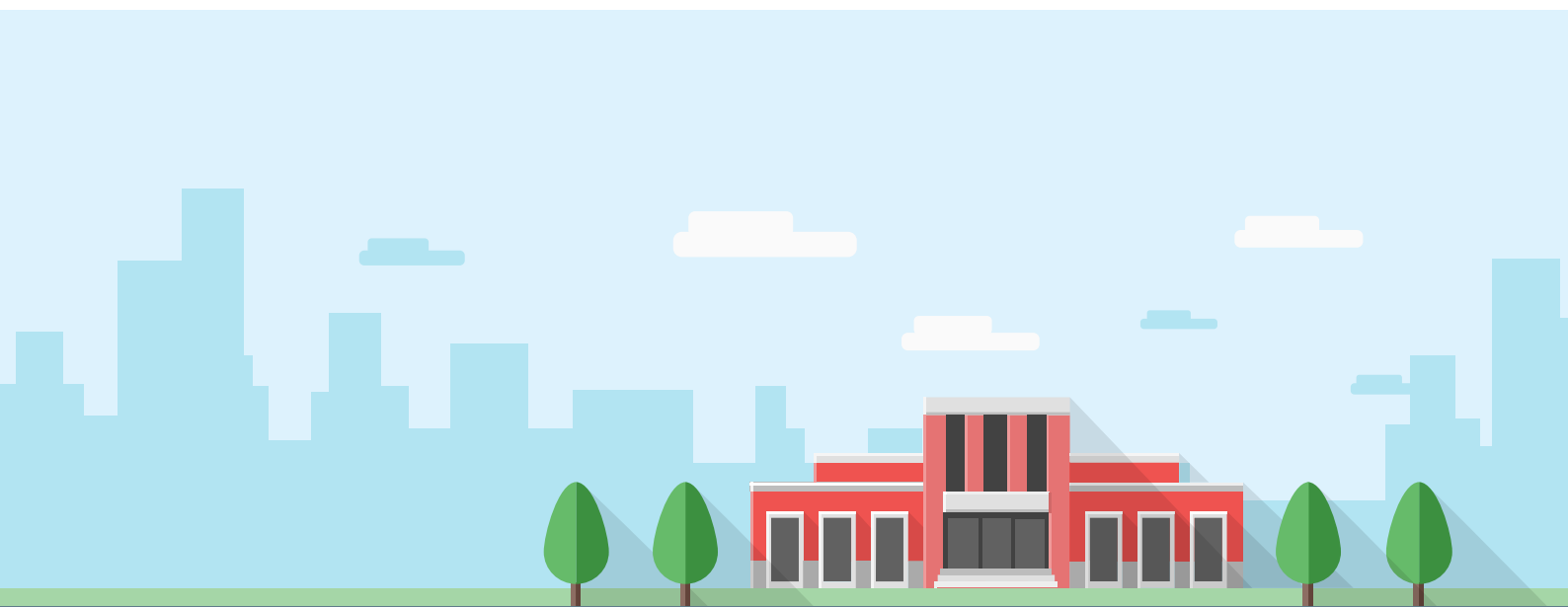
Key finding

TAs are not adequately prepared for their role in classrooms and have little time for liaison with teachers

There was clear evidence from the DISS project that TAs frequently come into their role unprepared, both in terms of background training and day-to-day preparation. There are no specific entry qualifications for TAs and many do not receive any induction training.

TAs also have different levels of formal qualifications when compared with teachers; the majority of TAs, for example, do not have an undergraduate degree.[2] This level of training is important considering their common deployment as 'primary educators' for low-attaining with SEND. It is often argued – quite sensibly – that TAs' qualifications should make a difference to pupil outcomes, but there is no evidence that this is the case.[16,17,18] Schools still need to think more strategically about TA deployment to make the most of individuals' qualifications and skills.

On a day-to-day level, the results from the DISS, MAST and SENSE studies revealed clear concerns about how TAs are prepared to support pupil learning. The vast majority of teachers (especially secondary teachers) reported having no allocated planning or feedback time with the TAs they worked with, and no training in relation to managing, organising or working with TAs.

Communication between teachers and TAs is largely ad hoc, taking place during lesson changeovers and before and after school. As such, conversations rely on the goodwill of TAs. Many TAs report feeling underprepared for the tasks they are given. They 'go into lessons blind' and have to 'tune in' to the teacher's delivery in order to pick up vital subject and pedagogical knowledge, tasks and instructions.[2]

SUMMARY OF RECOMMENDATIONS

The effective use of TAs under everyday classroom conditions

1
TAs should not be used as an informal teaching resource for low attaining pupils

The evidence on TA deployment suggests schools have drifted into a situation in which TAs are often used as an informal instructional resource for pupils in most need. This has the effect of separating pupils from the classroom, their teacher and their peers.

Although this has happened with the best of intentions, this evidence suggests that the status quo is no longer an option.

School leaders should systematically review the roles of both teachers and TAs and take a wider view of how TAs can support learning and improve attainment throughout the school.

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2
Use TAs to add value to what teachers do, not replace them

If TAs have a direct instructional role it is important they add value to the work of the teacher, not replace them – the expectation should be that the needs of all pupils are addressed, first and foremost, through high quality classroom teaching. Schools should try and organise staff so that the pupils who struggle most have as much time with the teacher as others. Breaking away from a model of deployment where TAs are assigned to specific pupils for long periods requires more strategic approaches to classroom organisation. Instead, school leaders should develop effective teams of teachers and TAs, who understand their complementary roles in the classroom.

Where TAs are working individually with low attaining pupils the focus should be on retaining access to high-quality teaching, for example by delivering brief, but intensive, structured interventions (see Recommendations 5 and 6).

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3
Use TAs to help pupils develop independent learning skills and manage their own learning

Research has shown that improving the nature and quality of TAs' talk to pupils can support the development of independent learning skills, which are associated with improved learning outcomes. TAs should, for example, be trained to avoid prioritising task completion and instead concentrate on helping pupils develop ownership of tasks.

TAs should aim to give pupils the least amount of help first. They should allow sufficient wait time, so pupils can respond to a question or attempt the stage of a task independently. TAs should intervene appropriately when pupils demonstrate they are unable to proceed.

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4
Ensure TAs are fully prepared for their role in the classroom

Schools should provide sufficient time for TA training and for teachers and TAs to meet out of class to enable the necessary lesson preparation and feedback.

Creative ways of ensuring teachers and TAs have time to meet include adjusting TAs' working hours (start early, finish early), using assembly time and having TAs join teachers for (part of) Planning, Preparation and Assessment (PPA) time.

During lesson preparation time ensure TAs have the essential 'need to knows':

- Concepts, facts, information being taught

- Skills to be learned, applied, practised or extended

- Intended learning outcomes

- Expected/required feedback.

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The effective use of TAs in delivering structured interventions out of class

Integrating learning from work led by teachers and TAs

5

Use TAs to deliver high quality one-to-one and small group support using structured interventions

Research on TAs delivering targeted interventions in one-to-one or small group settings shows a consistent impact on attainment of approximately three to four additional months' progress (effect size 0.2–0.3). Crucially, these positive effects are only observed when TAs work in structured settings with high quality support and training. When TAs are deployed in more informal, unsupported instructional roles, they can impact negatively on pupils' learning outcomes.

6

Adopt evidence-based interventions to support TAs in their small group and one-to-one instruction

Schools should use structured interventions with reliable evidence of effectiveness. There are presently only a handful of programmes in the UK for which there is a secure evidence base, so if schools are using programmes that are 'unproven', they should try and replicate some common elements of effective interventions:

- Sessions are often brief (20–50mins), occur regularly (3–5 times per week) and are maintained over a sustained period (8–20 weeks). Careful timetabling is in place to enable this consistent delivery

- TAs receive extensive training from experienced trainers and/ or teachers (5–30 hours per intervention)

- The intervention has structured supporting resources and lesson plans, with clear objectives

- TAs closely follow the plan and structure of the intervention

- Assessments are used to identify appropriate pupils, guide areas for focus and track pupil progress. Effective interventions ensure the right support is being provided to the right child

- Connections are made between the out-of-class learning in the intervention and classroom teaching (see Rec 7).

7

Ensure explicit connections are made between learning from everyday classroom teaching structured interventions

Interventions are often quite separate from classroom activities. Lack of time for teachers and TAs to liaise allows relatively little connection between what pupils experience in, and away, from, the classroom. The key is to ensure that learning in interventions is consistent with, and extends, work inside the classroom and that pupils understand the links between them. It should not be assumed that pupils can consistently identify and make sense of these links on their own.

Sections are colour coded for ease of reference

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The effective use of TAs under everyday classroom conditions

1 TAs should not be used as an informal teaching resource for low attaining pupils

The research outlined previously suggests that the ways in which TAs are often used in schools do not represent a sound educational approach for low-attaining pupils or those with SEN. Indeed, it has led to questions about the overall cost-effectiveness of employing TAs in schools. Encouragingly, research is showing that schools can make relatively straightforward changes that enable TAs to work much more effectively, in ways that can have a potentially transformative effect on pupil outcomes.

The recommended strategies outlined in this section focus on maximising the use of TAs in everyday classroom contexts. They are based heavily on follow-on studies from the DISS project, in particular the Effective Deployment of Teaching Assistants (EDTA) project, and the developmental work of the Maximising the Impact of Teaching Assistants (MITA) programme, which worked with schools to develop alternative ways of using TAs that worked for both staff and pupils, and dealt with the challenges identified previously.[19] Further information on this research is available in Box 1, *What evidence is there on the use of TAs in everyday classroom contexts?*

A key conclusion arising from the evidence on TA deployment is that they are often used as an informal teaching resource for pupils in most need. Though this has happened with the best of intentions, it often results in those pupils being separated from the teacher, whole-class teaching, and their peers. As this arrangement is associated with lower learning outcomes and independence, it suggests the status quo in terms of TA deployment is no longer an option.

Addressing the current situation is a school leadership issue: school leaders should rigorously define the role of TAs and consider their contribution in relation to the drive for whole-school improvement. These decisions on deployment are the starting point from which all other decisions about TAs flow.

Crucially, the starting point is to ensure low-attaining pupils and those with SEND receive high quality teaching, as the evidence shows that it is these children who are most disadvantaged by current arrangements. School leaders should not view the process of rethinking their TA workforce as a substitute for addressing the overall provision made for disadvantaged pupils, lower-attainers and those with SEND. The expectation should be that the needs of all pupils must be addressed, first and foremost, through excellent classroom teaching.

One central issue facing school leaders is to determine the appropriate pedagogical role for TAs, relative to teachers. If the expectation is that TAs have an instructional teaching role it is important they are trained and supported to make this expectation achievable.

There may also be a case for some TAs to have a full or partial role in non-pedagogical activities, such as easing teachers' administrative workload or in meeting pupils' welfare or pastoral needs. Ultimately, the needs of the pupils must drive decisions around TA deployment. School leaders and governors may find the Professional Standards for Teaching Assistants helpful in defining the role, purpose and contribution of TAs.

"Addressing the current situation is a school leadership issue. School leaders should rigorously define the role of TAs and consider their contribution in relation to the drive for whole-school improvement."

It might be that the roles of some TAs need to change wholly or in part. This is why a thorough audit of current arrangements is advised to define the point from which each school starts, and the goals of reform. The section 'Acting on the Evidence' (), outlines a number of tools and strategies that schools have successfully used to review the use of TAs and develop more effective practices.

2 Use TAs to add value to what teachers do, not replace them

If TAs are to play a direct instructional role, it is important that they supplement, rather than replace, the teacher. Schools can mitigate 'separation effects' by ensuring the pupils who struggle most have no less time with the teacher than others. Rather than deploy TAs in ways that replace the teacher, TAs can be used to enable teachers to work more with lower-attaining pupils and those with SEND. Where TAs do work with pupils individually or in groups, it is essential that they are equipped with the skills to support learning, consistent with the teachers' intentions.

Breaking away from a model of deployment where TAs are assigned to specific pupils for long periods requires more strategic approaches to classroom organisation, based more around teamwork between teacher and TA. Evidence on the impact of some of these approaches is still developing, nevertheless, the examples below are consistent with the principle of 'supplement, not replace, the teacher':

- Rotating roles - Setting up the classroom in such a way that on day one, the teacher works with one group, the TA with another, and the other groups complete tasks. collaboratively or independently. Then, on day two, the adults and activities rotate, and so on through the week. In this way, all pupils receive equal time working with the teacher, the TA, each other and under their own direction.

- Make TAs a more visible part of teaching during their whole-class deliver; for example, by using them to scribe answers on the whiteboard, or to demonstrate equipment. This can help the teacher maintain eye contact with the class.

- Using TAs to provide 'teaching triage': roving the classroom and identifying pupils who are having difficulty with a particular task, and who need further help, and flagging this to the teacher.

- Helping pupils in their readiness for learning, ensuring they are prepared and focused for the lesson.

- Using TAs to focus on a supplementary whole-class objective. For example, focusing on writing in a secondary science lesson.

Crucially, school leaders should work on developing effective classroom partnerships. A teacher-TA agreement can help staff specify their coordinated but differentiated classroom roles, by identifying the ways TAs might contribute at various stages of a lesson (see 'Acting on the Evidence' for a teacher-TA agreement template).

In time, as practices develop, school leaders might consider a whole-school policy, articulating a shared understanding of TA deployment, preparation and training (see 'Acting on the Evidence' for a policy template for TA deployment, training and use).

3 Use TAs to help pupils develop independent learning skills and manage their own learning
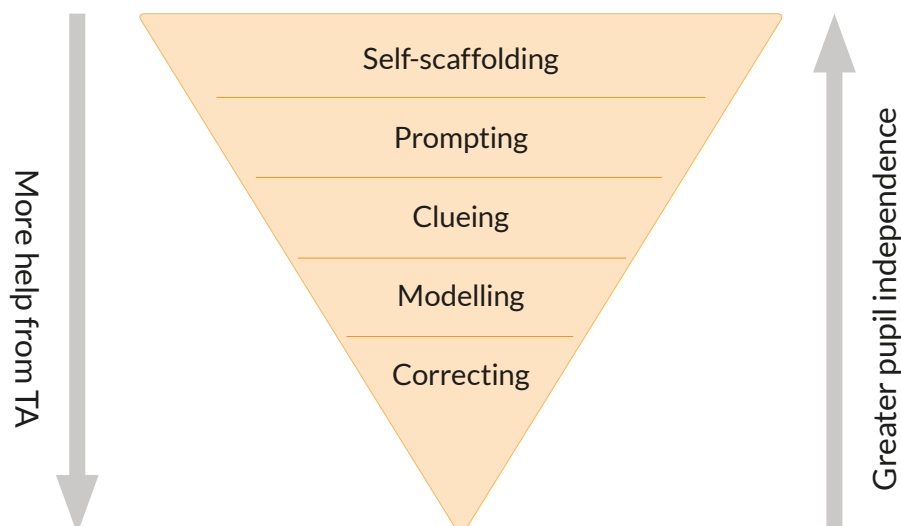
Schools in the EDTA project explored how TAs can help all pupils develop essential skills underpinning learning, such as self-scaffolding: encouraging pupils to ask themselves questions that help them get better at managing their learning. Recent research shows that improving the nature and quality of TAs' talk to pupils can support the development of independent learning skills,[20] which are associated with improved learning outcomes.[1] Figure 1 shows a range of ways in which TAs can inhibit, as well as encourage, pupils' independent learning skills.

The practical framework shown in Figure 2 is designed to help TAs scaffold pupils' learning and encourage independence.[21] TAs should move down the layers in turn. The initial expectation is that pupils self-scaffold whilst the TA observes their performance. TAs should then intervene appropriately when pupils demonstrate they are unable to proceed. The key is for TAs to give the least amount of help first. It is important the tasks set by teachers, and supported by TAs, provide pupils with the right level of challenge.

Figure 1. TA teaching strategies that encourage and inhibit independent learning

Avoid	Encourage
x Prioritising task completion	✓ Pupils to be comfortable taking risks with their learning
x Not allowing pupils enough thinking and response time	✓ Providing the right amount of support at the right time
x 'Stereo-teaching' (repeating verbatim what the teacher says)	✓ Pupils retaining responsibility for their learning
x High use of closed questions	✓ Use of open ended questions
x Over-prompting and spoon-feeding	✓ Giving the least amount of help first to support pupils' ownership of the task

Figure 2. Scaffolding framework for teaching assistant-pupil interactions

More help from TA

Self-scaffolding

Prompting

Clueing

Modelling

Correcting

Greater pupil independence

Ensure TAs are fully prepared for their role in the classroom

Finding extra time within schools is, of course, never easy. Nevertheless, without adequate out-of-class liaison it is difficult for teachers and TAs to work in the complementary way described above.

Schools that participated in the EDTA project, and those that have undertaken the MTA programme, have found creative ways to ensure teachers and TAs had time to meet, improving the quality of lesson preparation and feedback.[19] For example, headteachers changed TAs' hours of work so that they started and finished their day earlier, thereby creating essential liaison time before school. Table 1 summarises a range of strategies that

schools have used to enable teacher–TA interactions out of class, as well as some key 'need to knows' for TAs in advance of lessons.

The preparedness of TAs also relates to their ongoing training and professional development. If a specific pedagogy is being used, such as formative assessment or cooperative learning, TAs should be trained so they fully understand the principles of the approach and the techniques required to apply it.

Training should also be provided for teachers on how to maximise the use of TAs in the classroom.

Table 1. Changes made by schools to help TA preparedness

Teacher-TA liaison	Ensure TAs have the lesson plan 'need to knows' in advance
• Adjust TA's working hours: start early, finish early	• Concepts, facts, information being taught
• Timetabling: use assembly time	• Skills to be learned, applied, practised or extended
• TAs join teachers for (part of) PPA time	• Intended learning outcomes
• SLT set expectations for how liaison time is used	• Expected/required feedback

Box 1. Evidence Summary

What evidence is there on the use of TAs in everyday classroom contexts?

Much of the research investigating the use of TAs in everyday classroom environments is small-scale and describes what TAs do in the classroom. Almost all of it has at least some focus on how TAs are employed and deployed to facilitate the inclusion of children with SEND.[22,23,24,25] Early research looked at teamwork between teachers and other adults, such as parent-helpers and TAs,[26,27] leading to a useful collaborative study with schools on alternative ways of organising classrooms.[28] Both the qualitative and quantitative work on impact relies principally on impressionistic data from school staff.

Findings from large-scale systematic analyses investigating the effects of TAs on learning outcomes challenge the assumption that there are unqualified benefits from TA support. Experimental studies are rare, but one in the USA found no differences in the outcomes for pupils in classes with TAs present.[5] Longitudinal research in the UK has produced similar results.[16] There are very few randomised control trials that investigate the impact of TAs in everyday classrooms, but two conducted in Denmark have found mixed effects.[30] However, there were insufficient data on school leaders' decision-making and classroom practices, meaning it is difficult to conclude what drove the effects.

Secondary analyses of school expenditure have suggested the expenditure on TAs is positively correlated with improved academic outcomes.[29,32,33] However, these analyses of TA impact do not adequately rule out the possibility that other school factors might explain the correlations found, and the conclusions drawn are not supported by the evidence collected; in particular they do not include data on what actually happens in classrooms.

The evidence on the impact of TAs on non-academic outcomes (including well-being) is thin and largely based on impressionistic data. The balance between TAs' contribution to academic and non-academic outcomes needs more attention, but there are concerns that TAs can encourage dependency, because they prioritise task completion rather than encouraging pupils to think for themselves.[2,9] Evidence shows that over-reliance on one-to-one TA support leads to a wide range of detrimental effects on pupils, in terms of interference with ownership and responsibility for learning, and separation from classmates.[10,12,13]

The largest and most in-depth study ever carried out on the use and impact of TA support in everyday classroom environments is the multi-method DISS project.[2] Unlike other studies, it linked what TAs actually do in classrooms to effects on pupil progress. Researchers critically examined the relationship between TA support and the academic progress of 8,200 pupils, and put forward a coherent explanation for the negative relationship found on the basis of careful analyses of multiple forms of data collected in classrooms (see the section 'What is the impact of TAs on pupil's academic attainment?'). The findings have been referred to throughout this guidance.

Since then, there has been good observational evidence from the EDTA project demonstrating the positive impact on school and classroom processes made as a result of making changes consistent with the recommendations outlined in this guidance.[19] The underlying model has been subjected to extensive professional validation through collaborative work with schools via the Maximising the Impact of Teaching Assistants (MITA) school improvement and CPD programme. The EEF is currently funding an independent evaluation of MITA to test the extent to which reforming TA deployment, practice and preparation in everyday classrooms can improve pupil attainment and engagement.

Literature reviews by Sharma and Salend (2016) and Masdeu Navarro (2015) provide good overviews of the international evidence on the roles and impact of teaching assistants.[25,30]

The effective use of TAs in delivering structured interventions out of class

Use TAs to deliver high quality one-to-one and small group support using structured interventions

What is the impact of using TAs to provide one-to-one or small group intensive support using structured interventions?

The area of research showing the strongest evidence for TAs having a positive impact on pupil attainment focuses on their role in delivering structured interventions in one-to-one or small group settings.

This research shows a consistent impact on attainment of approximately three to four additional months' progress over an academic year (effect size 0.2–0.3).[1,32,34] This can be seen as a moderate effect.

Crucially, these positive effects are only observed when TAs work in structured settings with high-quality support and training. When TAs are used in more informal, unsupported instructional roles, we see little or no impact on pupil outcomes (see the section 'What is the impact of TAs on pupils' academic attainment?').[2] This suggests that schools should use a small number of carefully chosen and well structured interventions, with reliable evidence of effectiveness. The aim should be to complement the overall teaching and learning objectives and minimise the time pupils spend away from the classroom. Characteristics of effective interventions are discussed below (see Recommendation 7).

How does this compare with other forms of intensive instructional support?

The average impact of TAs delivering structured interventions is, perhaps unsurprisingly, less than that for interventions using experienced qualified teachers, which typically provide around six additional months' progress per year.[1] However, these teacher-led interventions tend to be expensive, requiring additional, and often specialist, staff. TA-led interventions typically produce better outcomes than volunteers when delivering interventions (typically one to two months' additional progress), although both these groups benefit significantly from training and ongoing coaching.[32,34] Further information on the research conducted on TA-led interventions is available in Box 3 overleaf.

The positive effects seen for TAs delivering structured interventions challenges the idea that only certified teachers can provide effective one-to-one or small group support.

"The area of research showing the strongest evidence for TAs having a positive impact on pupil attainment focuses on their role in delivering structured interventions in one-to-one or small group settings."

Conduct an interventions 'health check'

When considering the use of TAs to deliver structured interventions it is important to think about which intervention is being used and how it is being delivered. One thing you might consider is conducting an interventions 'health check'.

Useful questions to ask include:

- Are you using evidence-based interventions? If so, are they being used as intended, with the appropriate guidance and training?

- Is appropriate planning provided for timetabling out-of-class sessions so TAs complement classroom teaching?

- What does your data show for those pupils involved in intervention work? Is it in line with the expected progress from the research and/or provided by the programme developer?

- Do your findings suggest that training for TAs (and teachers) needs to be refreshed?

- How effective are TAs and teachers in reviewing work taking place in intervention sessions and are links being made with general classroom work?

- Is there designated time for teacher/TA liaison?

6 Adopt evidence-based interventions to support TAs in their small group and one-to-one instruction

When considering the use of TAs to deliver structured interventions it is important to think about which intervention programme is being used and how it

is being delivered. As discussed, the key difference between effective and less effective TA-led interventions is the amount and type of training, coaching and support provided by the school. In this sense, evidence-based interventions provide a means of aiding consistent and high quality delivery.

At present there are relatively few programmes in the UK for which there is secure evidence of effectiveness. If your school is using, or considering, programmes that are 'unproven', ensure they include the common elements of effective interventions:

- Sessions are often brief (15-45 minutes), occur regularly (3–5 times per week) and are maintained over a sustained period (8–20 weeks). Careful timetabling is in place to enable consistent delivery;

- TAs receive extensive training from experienced trainers and/or teachers (5–30 hours per intervention);

- The intervention has structured supporting resources and lesson plans, with clear objectives and possibly a delivery script;

- Ensure there is fidelity to the programme and do not depart from suggested delivery protocols. If it says deliver every other day for 30 minutes to groups of no more than four pupils, do this!

- Likewise, ensure TAs closely follow the plan and structure of the intervention, and use delivery scripts;

- Assessments are used to identify appropriate pupils, guide areas for focus and track pupil progress. Effective interventions ensure the right support is being provided to the right child;

- Connections are made between the out of-class learning in the intervention and classroom teaching (see Recommendation 7).

- Examples of evidence-based interventions available in the UK include Catch Up Numeracy, Catch Up Literacy, Reading Intervention Programme, Talk for Literacy, Nuffield Early Language Intervention, ABRA, 1stClass@Number and Switch-on Reading (see Box 2). Details of all EEF projects involving TA-led interventions, including the latest evaluation findings, can be found at the EEF website: https://eef.li/projects/

Box 2. Nuffield Early Language Intervention

The Nuffield Early Language Intervention (NELI) is an oral language intervention designed to improve listening, narrative and vocabulary skills in children in nursery and reception who show weakness in their oral language skills. Three to five weekly sessions are delivered to groups of 3-4 children for 20-30 weeks, by TAs who are extensively trained in the approach. NELI was independently evaluated using a randomised controlled trial involving 34 schools and nurseries. Children receiving intervention made approximatively four months of additional progress in language skills compared to children receiving standard provision. These impacts on language skills were still seen six months after the intervention.

The full evaluation report is available at:
https://educationendowmentfoundation.org.uk/projects-and-evaluation/projects/nuffield-early-language-intervention/

Box 3. Evidence Summary

What research has been conducted on TAs delivering small group and one-to-one interventions?

The research investigating TAs delivering interventions is small but growing: in the Teaching and Learning Toolkit, there are 19 studies (80% of the total studies relating to TAs).[1] Nevertheless, most of these studies are small scale, typically involving 30 to 200 pupils. The majority of this research has been conducted internationally;[32,34] however, the emerging findings from UK evaluations are consistent with the international picture. More research has been conducted on literacy interventions than for mathematics, although positive impacts are observed for both.

Although the majority of TA-delivered interventions showing positive effects involve one-to-one instruction, small group approaches also show promise, with similar impacts observed compared to one-to-one interventions. Although further research is needed, this suggests it may be worth exploring small group interventions as a cost-effective alternative to delivery on a one-to-one basis.

An additional area for investigation is the long-term impact of TA-delivered interventions. Studies showing positive impacts on learning outcomes tend to measure learning outcomes soon after the end of the intervention. We know less about how those immediate improvements translate into long-term learning and performance on national tests. This is particularly relevant given that pupils' learning in interventions is not regularly connected to the wider curriculum and learning in the classroom (see Recommendation 7). Encouragingly, a recent evaluation of ABRA, a 20-week literacy programme delivered by trained teaching assistants to small groups of pupils in Key Stage 1, showed those pupils who participated in the programme continued to do better than their comparison-group peers a year after the intervention finished (as measured by Key Stage 1 SATS).

Integrating learning from everyday classroom contexts and structured interventions

Training TAs for specific interventions does not, on its own, provide an answer to the ineffective way in which TAs have been found to be deployed in schools. Previous research has indicated concern over the extent to which learning via a structured intervention is related to the pupils' broader experiences of the curriculum.

Interventions are often quite separate from classroom activities and the lack of time for teachers and TAs to liaise means there is relatively little connection between what pupils experience in and away from the classroom. This means it can be left to the pupil to make links between the coverage of the intervention and the wider curriculum coverage back in the classroom. Given that supported pupils are usually those who find accessing learning difficult in the first place, this presents a huge additional challenge.

The integration of the specific intervention with the mainstream curriculum is therefore vital.

Pupils are typically withdrawn from class for interventions, so it should be a prerequisite of any TA-led programme that it at least compensates for time spent away from the teacher. Crucially, this does not mean that we should pile the responsibility for pupils making accelerated progress onto TAs.

The SEND Code of Practice makes it clear that 'teachers are responsible and accountable for the progress and development of the pupils in their class, *including* [our emphasis] where pupils access support from teaching assistants'.[34]

"Addressing the current situation is a school leadership issue. School leaders should rigorously define the role of TAs and consider their contribution in relation to the drive for whole-school improvement."

ACTING ON THE EVIDENCE

The evidence on effective TA deployment, training and use can be summarised in one clear principle – 'Use TAs to supplement what teachers do, not replace them' (Recommendation 2). The remaining recommendations in this guidance are either exemplifications of that principle (e.g. the careful use of TA-led interventions) or ways of achieving it (e.g. ensuring TAs and teachers understand their complementary roles). The evidence therefore is relatively straightforward. At the same time, there are also clear benefits to schools re-framing the way TAs are used, in terms of pupil outcomes, school outcomes and overall staff satisfaction and morale (see 'Ten reasons to improve the use of Teaching Assistants').

Nevertheless, our experiences of working with schools in improving the way TAs are trained and deployed suggests that making those changes is not straightforward. It can be a complex process, requiring changes across the school (senior leadership, middle leadership, teachers, TAs), addressing existing ways of working, training at all levels, and sometimes structural changes in terms of timetabling and working arrangements. Encouragingly, schools that overcome practical barriers to change do so by investing time, attention and effort into making improvements – not by spending lots of money.

Figure 3 shows a model for school improvement that schools have previously found useful in reviewing the current use of TAs and guiding a process of change. This should shape an implementation plan for your school, which can then act as a foundation for training and deploying staff - summarise the objectives for the project and the activities that will take place to support the changes. An additional EEF guidance report, *'Putting Evidence to Work: A School's Guide to Implementation'*, provides more detail on the features and processes of effective implementation.

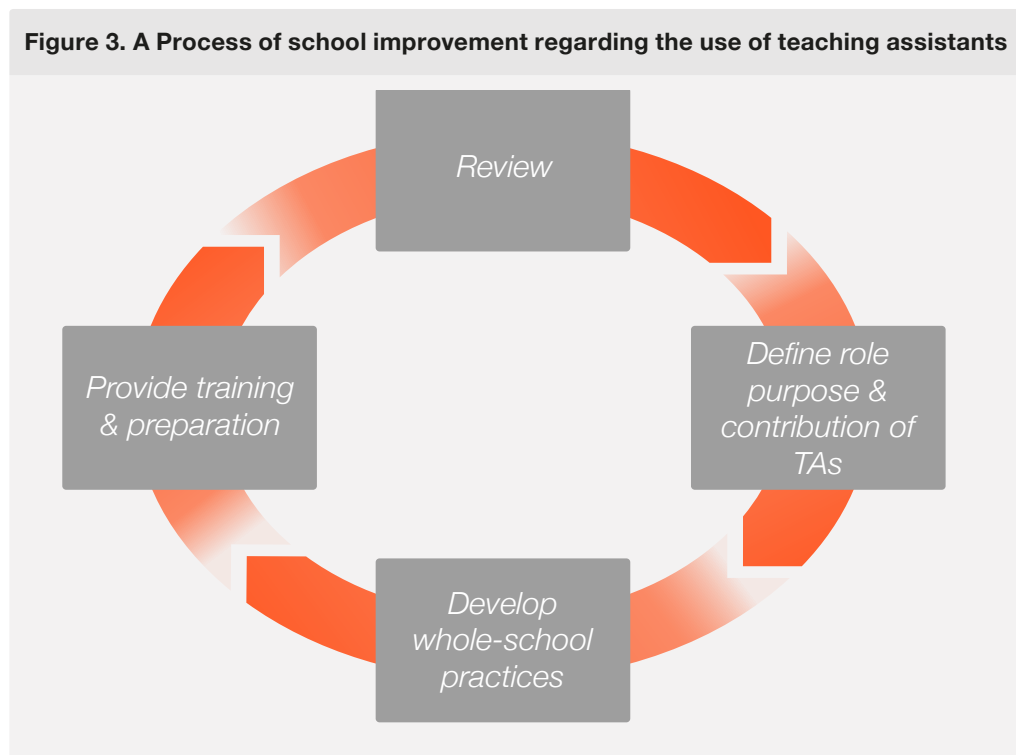**Figure 3. A Process of school improvement regarding the use of teaching assistants**

Figure 3 shows a model for school improvement that SLTs have previously found useful in reviewing the current use of TAs and guiding a process of change. This should shape an action plan for your school, which can then act as a foundation for training and deploying staff. Importantly, training should include supporting teachers in how to work effectively with TAs.

Developmental work with schools has revealed a number of key principles to successfully taking action on the recommendations in this guidance:[19,36]

1. The headteacher forms and leads a small development team with responsibility for managing the changes. This is essential, as staffing and contractual issues inevitably feature in decision making and change cannot be sanctioned without the headteacher's understanding and approval.

2. This development team schedules dedicated time over the course of two or three terms for discussion, planning, decision making and action. Time is ring fenced for these discussions.

3. The Senior Leadership Team (SLT) should develop and communicate a clear vision for what the schools needs from its TA workforce. Think about TAs' role and contribution, and what pupils and staff will do differently as a result of improving TA deployment and preparation. Keep discussions open and positive.

4. A thorough audit of the current situation is conducted (see Figure 3 and [36]). This can include:

   - Self-assessment of current practices;

   - Surveying staff (anonymously) for their views and experiences;

   - Conducting observations and asking questions about teachers' decision-making regarding TA deployment;

   - Making an effort to listen to TAs' interactions with pupils;

   - A skills audit to collect details of TAs' qualifications, certifications, training, experience, specialisms and talents; and

   - Obtaining the views of other stakeholders, such as pupils and parents/carers.

   SLT should explain the purpose of the audit process to staff, and emphasis the collaborative nature of the review and the changes to practice that will follow. It is important to be alive to the sensitives of carrying a process, the intentions of which could be misread by TAs in particular.

5. Change is rolled out gradually, testing ideas and winning support from staff across the school. The initial team is extended to include a small group of enthusiastic teachers and TAs who are interested in working with research evidence and willing to test new strategies and feed back on progress.

ADDITIONAL RESOURCES

A set of free practical resources are available to help schools implement the recommendations in this guidance report. The resources either relate to specific recommendations in the report, or to different stages in Figure 3 (e.g. Red Amber Green self-assessment).

These files can all be found at:

https://educationendowmentfoundation.org.uk/tools/guidance-reports/making-best-use-of-teaching-assistants/

Resources relating to recommendations in the guidance report

Recommendations 1 and 2 - Deployment of TAs in classrooms

- Teacher-TA agreement template - Support staff to develop and specify their coordinated, but differentiated, roles during lessons.

Recommendation 3 - TAs' interactions with pupils

- Scaffolding framework - Help TAs scaffold pupils' learning and encourage independent learning.

Recommendations 5, 6 and 7 - TAs delivering targeted, structured interventions

- Interventions health check - Consider how TA-led interventions are being delivered in your school in line with the research

- Evidence-based TA-led literacy and numeracy intervention - Adopt evidence-based TA-led interventions that have previously been shown to impact positively on pupil attainment.

Resources relating to the 'Acting on the evidence' school improvement process:

- Visioning exercise - Create a clear vision for your TA workforce. Define what great TA deployment and practice will look like in your school

- A self-assessment guide - Assess current practice and monitor progress against the report's recommendations using the Red Amber Green (RAG) ratings.

- Online audit surveys - Survey teachers, TAs and senior leaders anonymously for their perspectives on your school's current use of TAs.

- TA observation schedule - Collect data to aid your understanding of how TAs are deployed in classrooms across the school.

- Action planning template - Structure your thinking around reframing the use of TAs, and develop action plan points to realise your vision.

- TA policy template - Create a policy articulating a shared understanding of TA deployment, use and training in your school.

OTHER HELPFUL RESOURCES

The Maximising the Impact of Teaching Assistants (MITA) website contains resources and tools to help schools review practice and implement the recommendations in this guidance report, including the Teaching Assistant Deployment Review Guide, which school leaders can use to evaluate their current practices and processes against the best available research evidence, and a Guide to Useful Online Resources, which signposts free online resources to support decision-making and practice. The MITA website also contains details of courses and training, and downloadable papers and articles on the extensive research conducted at the UCL Institute of Education, London.

http://www.maximisingtas.co.uk

A number of Research Schools around the country offer training and support for schools in improving their use of TAs, in line with the evidence in this guidance report. Further information and contact details can be found at the Research School Network website.

https://researchschool.org.uk

HOW WAS THIS GUIDANCE COMPILED?

This guidance adopts a 'mixed methods' approach, drawing on both quantitative and qualitative research investigating TA deployment and use. The emphasis is on where there is reliable evidence of an impact on pupil learning outcomes – based on quantitative evaluations – although we also consider the wider research context on TAs, incorporating a range of qualitative methods. The intention is to provide a reliable foundation of 'what works', based on robust evidence and looking retrospectively, but also to provide a broad overview of the emerging research understanding (although not necessarily 'proven') and look prospectively at where the field is heading.

The primary source of evidence is the Teaching and Learning Toolkit, based on meta-analyses of evaluations of educational interventions developed by Prof. Steve Higgins and colleagues at the University of Durham, with the support of the Sutton Trust and the EEF.[1] The Toolkit entry on Teaching Assistants includes the widely referenced DISS study.[2] Findings are triangulated with other reviews of quantitative evaluations of TA led interventions, such as the Best Evidence Encyclopedia (BEE) reviews on Struggling Reading [31] and Primary Reading.[34]

Meta-analysis is a method of combining the findings of similar studies to provide a combined quantitative synthesis or overall 'pooled estimate of effect'. The results of, say, interventions seeking to improve low-attaining students' learning in mathematics can be combined so as to identify clearer conclusions about which interventions work and what factors are associated with more effective approaches. The advantages of meta-analysis over other approaches to reviewing are that it combines, or 'pools', estimates from a range of studies and should therefore produce more widely applicable or more generalisable results.

The Toolkit adopts a 'confidence approach' when reviewing evidence – How much is there? How reliable is it? How consistent are the findings? In addition to summarising on 'what works' the Toolkit also explores 'how', 'why' and 'in what contexts' approaches have an impact. Full details of the method used to produce the Teaching and Learning Toolkit – including search criteria, effect size/months' progress estimate and quality assessment – are available at:

https://educationendowmentfoundation.org.uk/evidence-summaries/about-the-toolkits/

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NOTES

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