

Guidance Report

All year levels

Making Best Use of Teaching Assistants



This Guidance Report is based on original content from a report of the same name produced by the Education Endowment Foundation (EEF). The original content has been modified where appropriate for an Australian context. The authors of the original Guidance Report are Professor Jonathan Sharples (Education Endowment Foundation), Rob Webster (Centre for Inclusive Education, UCL Institute of Education, London), and Professor Peter Blatchford (UCL Institute of Education, London). Australian content for this Guidance Report was provided by Dr Tanya Vaughan, Matthew Deeble and Susannah Schoeffel (Evidence for Learning).

Evidence for Learning (E4L) thanks the Australian researchers and practitioners who provided input to and feedback on drafts of this Guidance Report. We acknowledge the insights and support of Leanne Hillman (Bolster Education).

The citation for this Guidance Report should be 'Evidence for Learning (2019) Making best use of Teaching Assistants, Sydney: Evidence for Learning.'

Published September, 2019

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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

^{*}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 <u>Teaching & Learning Toolkit</u>. 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 <u>Boxes 1</u> and <u>2</u>). 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. 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.

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

complementary roles in

the classroom.

TAs, who understand their

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.

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.

See 1



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 <u>Recommendation 7</u>).

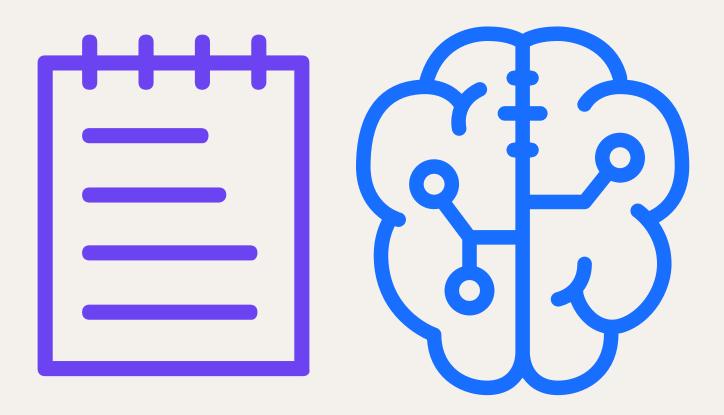
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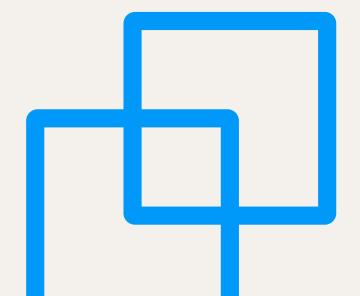
Ensure explicit connections are made between learning from everyday classroom teaching structured interventions

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 19 See page 20 See page 23



"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"





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

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. 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.



Use TAs to supplement what teachers do, not replace them

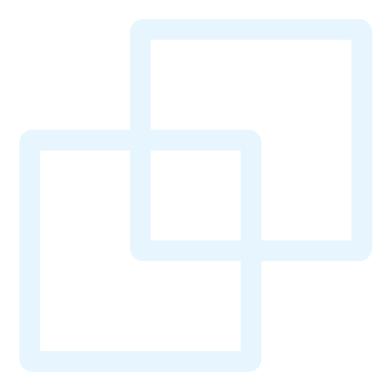
If TAs are to play a direct instructional role, it is important that they supplement, rather than replace, the teacher. Schools can mitigate 'separation effects' by ensuring the students who struggle most have no less time with the teacher than others. Rather than deploy TAs in ways that replace the 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 <u>teacher-TA</u> 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 skills²⁰, 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
X 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.

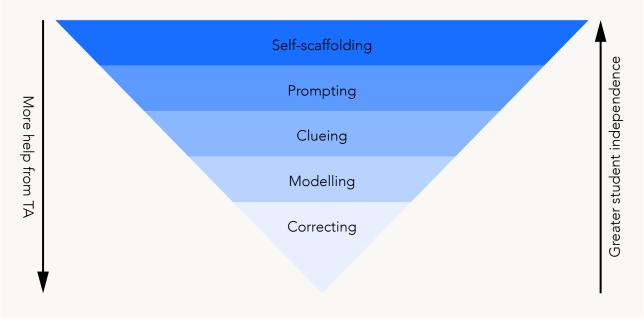


Figure 2. Scaffolding framework for teaching assistant-student interactions





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.

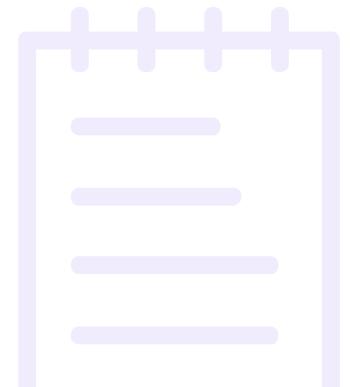
Schools that participated in the EDTA project, and those that have undertaken the MITA program, have found creative ways to ensure teachers and TAs had time to meet, improving the quality of lesson preparation and feedback.¹⁹ For example, principals changed TAs' hours of work so that they started and 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 earlyTimetabling: use assembly time	 Concepts, facts, information being taught 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. 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



5

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?'). 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.

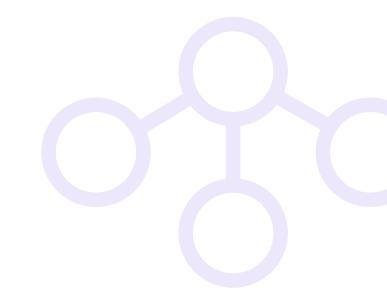
The positive effects seen for TAs delivering structured interventions challenges the idea that only certified teachers can provide effective one-to-one or small group support.

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 <u>Recommendation 7</u>).

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

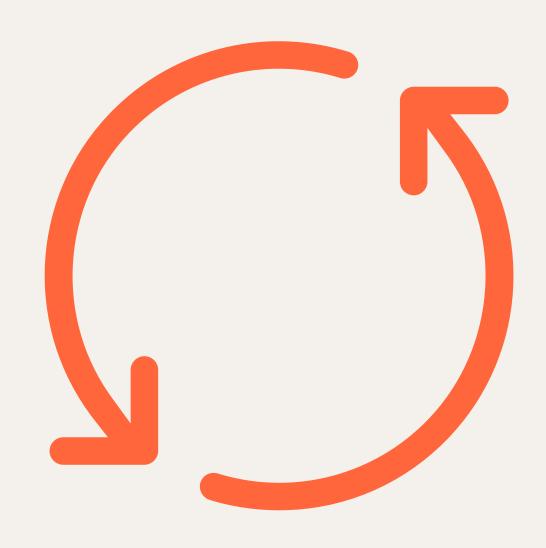
What research has been conducted on TAs delivering small group and one-to-one interventions?

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"

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 Agreement³⁴ 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 Identify a key priority that implementation process is amenable to change Continually acknowledge, Systematically explore programmes or practices support, and reward good implementation practices to implement Examine the fit and Plan for sustaining feasibility with the and scaling the school context intervention from the outset **Explore** Sustain Stable **Adoption** use of the decision approach **Deliver Prepare** Use implementation Develop a clear, data to drive logical and well faithful adoption and specified plan intelligent adaption Not ready Reinforce initial training Assess the readiness with follow-on support of the school to deliver within the school the implementation plan

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

Delivery begins

Support staff and solve

leadership approach

problems using a flexible

Ready

Practically prepare

infrastructure

e.g. train staff, develop

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 <u>vision</u> and understanding of expectations about the change that is desired?



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



Explore

Prepare

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?

Checklist questions



Does the school leadership have a logical <u>action plan</u>?



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?

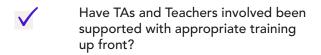
^{*}An audit could include activities such as completing the <u>self-assessment guide</u>, surveying staff anonymously, conducting <u>observations</u>, a skills audit and wider community consultation.

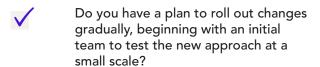




Deliver

Checklist questions





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 <u>Figure 3</u>. These resources below will be updated as they are released for Australia.

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

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

<u>A self-assessment guide</u> – 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.

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

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

<u>TA policy template</u> – 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

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

Recommendation 3 – TAs' interactions with students

<u>Scaffolding framework</u> – Help TAs scaffold students' learning and encourage independent learning.

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

<u>Interventions health check</u> – 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:

<u>evidenceforlearning.org.au/teaching-and-learning-toolkit/teaching-assistants/</u>

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

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

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 <u>Teaching & Learning Toolkit</u>, 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 Reading³⁵ 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

References

- 1 DEEWR. (2018). Education Aides. Job Outlook. Retrieved from joboutlook.gov.au/occupation. aspx?search=alpha&tab=stats&cluster=&code=4221
- 2 Education Endowment Foundation. (2019). Evidence for Learning Teaching & Learning Toolkit: Education Endowment Foundation. Teaching Assistants. [Online – cited 2019 Feb 13]. Available from: evidenceforlearning.org.au/teaching-and-learning-toolkit/teaching-assistants/
- 3 Blatchford, P., Russell, A. and Webster, R. (2012) Reassessing the impact of teaching assistants: How research challenges practice and policy. Oxon: Routledge.
- 4 Finn, J. D., Gerber, S. B., Farber, S. L. and Achilles, C. M. (2000) 'Teacher aides: an alternative to small classes?', in M.C. Wang and J.D. Finn (eds) How small classes help teachers do their best, 131–174. Philadelphia, PA: Temple University Center for Research in Human Development.
- 5 Klassen, R. (2001) 'After the statement: reading progress made by secondary students with specific literacy difficulty provision', Educational Psychology in Practice, 17(2): 121–133.
- 6 Reynolds, D. and Muijs, D. (2003) 'The effectiveness of the use of learning support assistants in improving the mathematics achievement of low achieving pupils in primary school', Educational Research, 45(3): 219–230.
- 7 Evidence for Learning in collaboration with Melbourne Graduate School of Education. (2018). Teaching assistants: Australasian Research Summary. Retrieved from <u>evidenceforlearning.org.au/the-toolkits/</u> <u>the-teaching-and-learning-toolkit/australasian-research-summaries/</u> <u>teaching-assistants</u>
- 8 Schlapp, U., Davidson, J. and Wilson, V. (2003) 'An 'extra pair of hands'?: Managing classroom assistants in Scottish primary schools', Educational Management and Administration, 31(2): 189–205.
- 9 Moyles, J. and Suschitzky, W. (1997) 'The employment and deployment of classroom support staff: Head teachers' perspectives', Research in Education, 58: 21–34.
- 10 Hutchings, M., Seeds, K., Coleman, N., Harding, C., Mansaray, A., Maylor, U., Minty, S. and Pickering, E. (2009) Aspects of school workforce remodelling strategies used and impact on workload and standards, Research Report DCSF-RR153, London: DCSF.
- 11 Webster, R. and Blatchford, P. (2013) 'The educational experiences of pupils with a Statement for special educational needs in mainstream primary schools. Results from a systematic observation study', European Journal of Special Needs Education, 28(4): 463–479.
- 12 Blatchford, P. and Webster, R. (2018) Classroom contexts for learning at primary and secondary school: Class size, groupings, interactions and special educational needs, British Educational Research Journal, 44(4): 681–703.
- 13 Rubie-Davies, C., Blatchford, P., Webster, R., Koutsoubou, M. and Bassett, P. (2010) 'Enhancing student learning? A comparison of teacher and teaching assistant interaction with pupils', School Effectiveness and School Improvement, 21(4): 429–449.
- 14 Radford, J., Blatchford, P. and Webster, R. (2011) 'Opening up and closing down: Comparing teacher and TA talk in mathematics lessons', Learning and Instruction, 21(5): 625–635.
- 15 Blatchford, P., Russell, A., Bassett, P., Brown, P. and Martin, C. (2004) The effects and role of Teaching Assistants in English primary schools (Years 4 to 6) 2000–2003: results from the Class size and Pupil-Adult Ratios (CSPAR) Project. Final Report. (Research Report 605), London: DfES.
- 16 Muijs, R.D. and Reynolds, D. (2001) Effective teaching. Evidence and practice, London: Paul Chapman.
- 17 Wiliam, D. (2010) 'How should we use what we know about learning to read?', keynote address at Changing Lives: 7th International Reading Recovery Institute, at the Institute of Education, London, 8 Jul.
- 18 Webster, R., Blatchford, P. and Russell, A. (2013) Challenging and changing how schools use teaching assistants: Findings from the Effective Deployment of Teaching Assistants project, School Leadership and Management, 33(1): 78–96.

- 19 Northern Territory Department of Education. (2015) Assistant Teacher Professional Standards. <u>transformingtraining.com.au/wp-content/uploads/sites/6/2015/06/BANNER Assistant Teacher Professional Standards V1.pdf</u>
- 20 Radford, J., Bosanquet, P., Webster, R. and Blatchford, P. (2015) Scaffolding learning for independence: clarifying teacher and TA roles for children with SEN, Learning and Instruction, 36: 1–10.
- 21 Bosanquet, P., Radford, J. and Webster, R. (2016) The Teaching Assistant's Guide to Effective Interaction: How to maximise your practice, Oxon: Routledge.
- 22 Moyles, J. and Suschitzky, W. (1997) Jills of all trades? Classroom assistants in KS 1 classes, London: ATL Publications.
- 23 Farrell, P., Balshaw, M. H. and Polat, F. (1999) The management, role and training of learning support assistants, London: DfEE Publications.
- 24 Lacey, P. (2001) 'The role of learning support assistants in the inclusive learning of pupils with severe and profound learning difficulties', Educational Review, 53(2): 157–167.
- 25 Sharma, U. and Salend, S. J. (2016). Teaching Assistants in Inclusive Classrooms: A Systematic Analysis of the International Research. Australian Journal of Teacher Education, 41(8). dx.doi.org/10.14221/ajte.2016v41n8.7; ro.ecu.edu.au/cgi/viewcontent.cgi?article=3355&context=ajte
- 26 Geen, A. G. (1985) 'Team teaching in the secondary schools of England and Wales', Educational Review, 37(1): 29–38.
- 27 Thomas, G. (1992) Effective classroom teamwork: support or intrusion. London: Routledge.
- 28 Cremin, H., Thomas, G. and Vincett, K. (2005) 'Working with teaching assistants: three models evaluated', Research Papers in Education, 20(4): 413–432.
- 29 Masdeu Navarro, F. (2015) Learning Support Staff: A literature review. OECD Education Working Paper no.125, OECD. oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=EDU/ WKP(2015)14&docLanguage=En
- 30 Brown, J. and Harris, A. (2010) Increased Expenditure on Associate Staff in Schools and Changes in Student Attainment, London: Training and Development Agency for Schools.
- 31 Nicoletti, C., and Rabe, B. (2014) Spending it wisely: how can schools use resources to help poorer pupils? London: Nuffield Foundation.
- 32 Hemelt, S. W. and Ladd, H. F. (2016) Teaching Assistants and Nonteaching Staff: Do They Improve Student Outcomes? CALDER Working Paper No. 169 <u>caldercenter.org/sites/default/files/WP%20169.pdf</u>
- 33 Webster, R., Russell, A. and Blatchford, P. (2016). Maximising the impact of teaching assistants: Guidance for school leaders and teachers. Second Edition. Oxon: Routledge.
- 34 Australian Education Union. (2017) Victorian Government Schools Agreement 2017. [Online – cited 2019 Aug 27]. Available from: aeuvic.asn.au/sites/default/files/Victorian%20Government%20 Schools%20Agreement%202017.pdf
- 35 Slavin, R. E., Lake, C., Davis, S., & Madden, N. (2011). Effective programs for struggling readers: A best-evidence synthesis. Educational Research Review, 6: 1–26.

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