

# Findings from 2008/09 research into secondary maths and science HLTAs

In 2004, the Government committed to recruiting, training and supporting two cadres of Higher Level Teaching Assistants (HLTAs), specialising in secondary mathematics or science. Under the programme, which is currently available in England, support staff are assessed against the HLTA standards. These standards have been developed to assure teachers, employers and parents of the quality contribution to pupils' learning that teaching assistants with HLTA status can make.

The status recognises the higher level skills and knowledge that support staff require to lead a range of learning-related activities under the direction and supervision of a teacher.

The development of the secondary maths and science strand of the programme is a reflection of the Government's commitment to the wider science, technology, engineering and mathematics (STEM) agenda.

This document presents keys findings from a research study carried out by the National Foundation for Educational Research (NFER) on behalf of the Training and Development Agency for Schools (TDA) into the deployment and impact of maths and science HLTAs. The research was carried out between December 2008 and August 2009.

The findings were drawn from surveys of 186 headteachers; 409 HLTAs; 168 Heads of Departments; 212 teachers; and case-study visits to nine secondary schools.

## Line management arrangements

There was evidence that schools and departments had adapted the role of the HLTA to meet their particular needs and priorities, and to reflect the skills and experiences of the HLTAs themselves.

- Seven out of ten HLTAs reported being attached to the department for which they had undergone maths or science training.
- Almost half of the HLTAs surveyed reported that they were line managed by the SENCO, while approximately four out of ten said they were line managed by their subject leader. The findings suggest that for many HLTAs, their line managers were not part of the department to which they were attached.
- HLTAs with an SEN line manager were more likely to report that their roles and responsibilities were not defined, and that their skills and interests were not always matched to the school.

47%

of HLTAs were line managed by SENCOs

66

The HLTA role allowed me to get more involved with the students and provided a challenge (Science HLTA)

We are finding that the HLTAs are more specialised and more skilled and are able to provide specific intervention in key areas (Headteacher)



#### Types of line management

Four main types of line management structure emerged across the nine case-study schools:

**Type 1**: The HLTA is seen as an integral member of the subject department and line-managed entirely by the HOD. Their role is to support the department, though in one instance, a mathematics HLTA has some involvement in the science department.

**Type 2**: The HLTA is managed by the subject HOD (though may have been originally line-managed by the SEN department, or been dual managed). The HLTA retains strong links with the SEN department e.g. deployment being negotiated between the SEN and subject departments; the HLTA reporting to the SENCO due to a continuing involvement with statemented pupils; or attending SEN department meetings to keep up to date with current issues.

**Type 3**: The HLTA is formally line managed by the SENCO, but deployed solely in the subject department. Half of the HLTAs timetable is managed by the SENCO, and half by the subject HOD. In practice this is seen as joint management.

**Type 4**: The HLTA is line managed by the SENCO/Head of Learning Support: and the timetable for HLTA deployment is entirely the responsibility of this line manager. Priority access to the HLTA is given to the subject department. This HLTA also has TA duties.

Line management outside a subject department (Type 3 and 4) did raise comment on how this limited the HLTA contributing to that department (particularly the difficulty of attending subject department meetings). In some instances, references were made to how this limited involvement led to a loss of opportunity for the HLTA to develop the role and themselves professionally. Lack of clarity arising from dual management also surfaced. One other notable difference between Type 1 and the other models was that those mathematics/science HLTAs deployed and line managed exclusively within a department were often seen to have a role in offering advantageous supply cover, due to their familiarity with the subject, syllabus and pupils. This cover role was not advocated in any of the other deployment models.

# Classroom support provided by HLTAs

Observation and interviews in the case-study schools showed a wide range of teaching tasks as well as other support activities undertaken by HLTAs. These included:

- · Withdrawing students and working with specific groups this involved the HLTA teaching small groups independently outside the classroom, and was a particularly common feature across all the nine schools. In some instances, the groups comprised pupils described as under achievers or the least able; in other cases, the HLTAs group was specifically statemented pupils. Other types of groupings mentioned include nurture and intervention groups; booster and revision classes, especially at key stage 4; and year 12 and 13 pupils following an alternative curriculum.
- Co-teaching teaching together in the same classroom environment with the subject teacher was

another dimension to the HLTAs repertoire: the HLTA could lead some of the lesson (e.g. the introduction or a specific task explanation; undertaking a question and answer session on subject revision). As part of co-teaching in this way HLTAs were also described as supporting individual pupils responsively in the classroom, including helping to maintain focus on-task or to manage potential disruption.

- Differentiation directly targeting differentiated support to SEN or statemented pupils within the class was frequently observed.
- Covering lessons for absent teachers this was another HLTA teaching contribution cited in some case-study schools, particularly for those HLTAs attached solely to a subject department. It was seen as an advantage and preferable to others (such as cover supervisors) covering lessons, because of the HLTAs familiarity with the students and with the syllabus. Nevertheless, covering long-term absence was not seen as an appropriate HLTA role.



The real advantage of the HLTA role is intervention and their ability to work with small groups with the full confidence of their departments (Headteacher)



### The impacts of maths and science HLTAs

HLTAs were perceived to have a range of positive impacts on maths and science pupils, teachers and departments. Many HLTAs also reported that attaining the status had benefited them personally.

#### Benefits for pupils

- The majority of school staff agreed that maths and science HLTAs helped to provide pupils with opportunities for personalised learning and to enhance their understanding of maths and science topics.
- Overall, the majority of headteachers, teachers and HLTAs agreed that maths and science HLTAs made a positive contribution to improving pupil outcomes in maths and science.

Pupils interviewed as part of the case studies noted that small group work with an HLTA:

- made it easier to concentrate and stay on task
- made them feel comfortable, confident and able to ask questions
- made learning fun and helped them recognise the importance of the subject
- made them feel they were good at the subject
- helped them calm down and improve attitude problems.

#### Benefits for teachers

- The majority of teachers reported that they felt that HLTAs made a positive contribution to improving the quality of their teaching, while many agreed that having an HLTA support them had helped to reduce their stress levels and workload.
- Over half of the maths and science subject leaders surveyed re-

ported that maths and science HLTAs enabled teachers to explore a variety of teaching styles and helped to develop more effective classroom resources.

In more than one case-study school, the view from teaching staff was that working with the HLTA was like having a second teacher in the classroom, (rather than an extra pair of hands). Particular benefits of mathematics/science HLTA support for teachers included:

- the opportunity for teachers themselves to differentiate learning tasks more and to work with specific pupils to gauge understanding
- withdrawal giving better learning opportunities to those pupils in the HLTAs group and the rest of the class
- a reduction in classroom behaviour challenges and disruption
- co-teaching increasing the teachers own knowledge of teaching styles and approaches
- more professional dialogue, which aided lesson preparation and teaching.

#### Benefits for HLTAs

- HLTAs said that achieving the status had led to improved job satisifaction and had increased their science or maths subject knowledge.
- Maths and science HLTAs also reported that achieving the status had helped with their career development and increased their recognition within the school.

Findings from the case-studies revealed that since achieving the status, impacts for HLTAs included:

 more autonomy and greater opportunity to be creative in devising and delivering learning opportunities 66

I used to hate maths. She's really changed me around. I'm really good at maths now (Year 11 pupil)

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Since we've been working with the science HLTA, we've calmed down a lot. We've changed; she makes us feel more confident (Year 9 pupil)

96%

of headteachers said HLTAs contributed to improving pupil outcomes in maths and science

- providing more and improved support in the classroom, with a greater input to lessons and planning for teaching and learning
- more recognition/status and a higher profile within the department; a greater sense of being part of a team; clarity about their role in the school
- more responsibility (such as for assessment of pupils and for managing other support staff)
- a greater pedagogical skill set and a clear work focus because of their subject specialism
- more variation compared to their previous support role
- more confidence; more selfrecognition and pride in their own abilities
- more opportunity to observe pupils progress and to have a greater input into pupils learning and thus achieving their potential.

### Benefits for the maths or science department

Case study interviewees highlighted a range of benefits of the HLTA role for their maths and science departments. These included:

- greater flexibility for the department and the capacity to offer more individual pupil or group support
- the HLTA providing new insights into pupil learning and support needs, and the additional knowledge of pupils learning styles

- HLTAs contributing to the cross fertilisation of ideas within and across departments
- allowing teachers themselves the opportunity for exploration and development of teaching and learning practices.

Overall, the view that the HLTA status was a significant, distinct and a holistic role in the department was evident, with significant benefits for the department as a whole.

When speaking about the impact of the mathematics/science HLTA status on departments, case-study interviewees highlighted a number of valued additionalities, focusing on enriched provision and increased support for pupils and teachers in the delivery of subjects, as well as greater flexibility in staffing. Benefits for the department associated with the role included:

- the positive impact overall on pupil achievement (e.g. at key stage 3)
- improved quality of teaching when the HLTA was involved
- greater flexibility on practical elements of subject when computer suites, laboratories etc were required
- better support for less experienced staff within the department (e.g. NQTs)
- enhanced standards of cover and the minimising of such demands on teachers.

88%

of HLTAs said that achieving the status had helped to improve their job satisfaction

The maths HLTA really understands the pupils and their ability needs, so he was very supportive to me as a teacher (Mathematics Teacher)

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It's such a difference I didn't realise it would make such a change to my work and I feel much more involved in the school (Science HLTA)



#### For more information

An online version of this document and the full research report can be found at www.nfer.ac.uk/HLTA or on the TDA website at www.tda.gov.uk.

For further details about this research please contact Matthew Walker (Project Leader) by email at m.walker@nfer.ac.uk.



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