

Arolygiaeth Ei Mawrhydi dros Addysg a Hyfforddiant yng Nghymru

Her Majesty's Inspectorate for Education and Training in Wales

Supporting more able and talented pupils in secondary schools

June 2012







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- ▲ pupil referral units;
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- ★ teacher education and training;
- work-based learning;
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Contents	Page
Introduction	1
Background	1
Main findings	2
Standards achieved by more able and talented pupils Provision for more able and talented pupils Local authority support and challenge for schools The impact of Welsh Government strategy	2 2 3 3
Recommendations	4
1 Standards achieved by more able and talented pupils	5
Key stage 3 Key stage 4	5 6
2 Provision for more able and talented pupils	8
Policy and leadership Curriculum and transition Resourcing and additional support for pupils Identification, assessment and tracking The role of parents and carers	8 9 10 11
3 Local authority support and challenge for schools	12
4 The impact of Welsh Government strategy	13
Appendix 1: Case studies	
Appendix 2: Evidence base	
Appendix 3: Examples from European countries	
The remit author and survey team	

Introduction

- This is the second in a series of reports on supporting more able and talented pupils in schools. It was produced in response to a request for advice in the Minister's annual remit to Estyn for 2011-2012. The first report in the series looked at support in primary schools and was published in June 2011. The purpose of this survey report is to:
 - evaluate the quality and effectiveness of strategies used by secondary schools and local authorities to support and challenge more able and talented pupils;
 - highlight examples of good practice and its impact on pupils;
 - identify weaknesses and gaps in provision; and
 - evaluate how successful Welsh Government guidance and training have been in improving provision and standards for more able and talented pupils.

There are nine good practice case studies in Appendix 1 and the report draws on the range of evidence noted in Appendix 2.

Background

- Challenging more able and talented learners to perform better is a national priority. In May 2008, the Welsh Government published the guidance document for schools and local authorities called 'Meeting the Challenge: Quality Standards in Education for More Able and Talented Pupils'. This complemented the guidance issued by ACCAC in 2003, 'A Curriculum of Opportunity: Developing Potential into Performance'.
- In this guidance, the term 'more able and talented' refers to about 20% of pupils who require enriched and extended opportunities to develop their abilities or talents in one or more areas. In every school, these more able and talented pupils include those who are more able across the curriculum and may be capable of achieving above the expected level in the end-of-key-stage teacher assessments and higher grades in GCSE. They also include pupils who show ability or are particularly talented in one or more specific areas, such as music, drama, art or sport.
- The Welsh Government guidance on 'Meeting the Challenge: Quality Standards in Education for More Able and Talented Pupils' provides practical advice to local authorities and schools. It is intended to be used as a developmental tool by schools that are at an early stage in terms of their whole-school provision for more able and talented pupils. Schools that have already developed policies and practices for more able and talented pupils can use the quality standards to audit their provision and plan for improvement. Furthermore, schools with well-established provision and action-planning systems can use it to assess their provision more formally and seek to gain 'The Challenge Award' quality mark.
- In Wales, schools are encouraged to meet the needs of all learners including the more able and talented pupils by planning differentiated activities for groups and individuals within their classes. Other European countries provide for more able and talented pupils in a variety of different ways. Appendix 3 describes how some European countries support the needs of more able and talented pupils.

Main findings

Standards achieved by more able and talented pupils

- More able and talented pupils in Wales achieve less well in Wales than in England. Too few secondary school pupils in Wales achieve above the expected level for their age (level 5) in end-of-key stage 3 teacher assessments in the core subjects of English or Welsh, mathematics and science. At key stage 4, too few 16-year-old pupils achieve the higher A/A* grades in the core subjects.
- The Programme for International Student Assessment (PISA) reports for 2007 and 2010, which assess the performance of students at 15 years of age in schools across more than 50 OECD (Organisation for Economic Cooperation) countries, suggest that Wales has few high achievers compared to the top-performing countries in the world.
- In the few schools where more able and talented pupils achieve their full potential, the good or excellent teaching and learning strategies adopted for more able and talented pupils impact positively on improving examination results. It is often the case that, in these few schools, all groups of pupils are appropriately challenged across the curriculum.

Provision for more able and talented pupils

- In the few schools with the best provision, more able and talented pupils are appropriately identified, supported and challenged and achieve high standards. These schools use a combination of teacher assessment, standardised testing, observation, and parental and pupil questionnaires to identify pupils' strengths and particular talents, and this information is shared with all staff. Pupils are well supported through a range of additional provision and their progress tracked and monitored carefully across all key stages. There are consistent, whole-school approaches to teaching and learning. A 'more able and talented' co-ordinator oversees the implementation of policy and practice and monitors the provision across the school and parents are fully involved. A few schools have established 'more able and talented' working parties, leadership groups or focus groups to support more able and talented pupils and to offer whole-school training to staff.
- However, in the majority of secondary schools, more able and talented pupils are not identified or challenged well enough, and do not always receive appropriate support. Identification, tracking and monitoring processes are not rigorous in these schools and there is little training for staff on how to work with more able and talented pupils.
- 11 More able and talented pupils benefit from a curriculum that promotes:
 - individualised or personalised approaches to learning;
 - having access to specialist teachers;
 - control over how and what they learn; and
 - mentoring sessions to support them in making option and career choices.

- 12 Transition arrangements between the majority of primary and secondary schools do not provide enough continuity and progression in the education of more able and talented pupils. For example, only a few secondary schools ask teachers in primary schools to identify more able and talented learners in Year 5 and Year 6 using agreed criteria. Where the quality of transition between schools is good, this has a significant impact on the long-term achievement of more able and talented pupils.
- More able and talented pupils benefit significantly from additional provision that is aimed specifically at developing their abilities and talents and offers opportunities to work with more able and talented pupils in other schools. If limited to the provision in only one school, the quality of support and breadth of additional opportunities may depend too much on the specialist skills and knowledge of teachers and tutors and resources in that school.
- In only a very few of the schools surveyed did more able pupils from disadvantaged backgrounds receive specific support to overcome barriers to their learning such as low aspiration or limited access to extra-curricular opportunities.
- 15 Effective communication with parents is a key factor in the few schools where more able pupils are successfully challenged to reach high standards. However, a significant minority of schools do not routinely inform parents that their children have been identified as more able and talented.

Local authority support and challenge for schools

- There is too much variation in the support and challenge provided for schools by local authorities to address the needs of more able and talented pupils. The support and challenge are too dependent on the skills, knowledge and understanding of the officer responsible for developing more able and talented provision in each authority and the time allocated for this work.
- In a few local authorities, secondary schools under their leadership have set up networks of professional practice that focus on improving provision and outcomes for more able and talented pupils. Only a few local authorities actively promote sharing best practice between schools.
- Very few local authorities use the data they have available to monitor the progress of more able and talented pupils. School improvement officers rarely discuss, in detail, the provision and outcomes for more able and talented pupils as a group of pupils during their school visits.

The impact of Welsh Government strategy

The Welsh Government strategy, along with associated funding streams, has resulted in varying degrees of improvements for more able and talented pupils by schools and local authorities. Since the publication of 'Meeting the Challenge: Quality Standards in Education for More Able and Talented Pupils' (Welsh Government/National Association for Able Children in Education, 2008), more schools and local authorities have prioritised the education of more able and talented pupils. The guidance and quality standards provide a practical way for schools and local authorities to audit and improve their provision.

- The Welsh Government and the National Association for Able Children in Education (NACE) provide effective support through conferences and training for local authorities and schools. However, a few local authorities have not taken full advantage of this training and a significant minority of schools are not aware of the guidance that is available. This means that they have not responded as effectively as they could to the Welsh Government's strategy and guidance and have not made enough progress in improving provision and raising the attainment of more able and talented pupils.
- Nearly all schools where provision for more able and talented is good use the Welsh Government/NACE quality standards effectively to support their work, usually by using them as an audit or self-assessment tool. Only a very few secondary schools use the quality standards to prepare for the NACE Challenge Award.

Recommendations

Schools should:

- R1 build on existing transition arrangements between primary and secondary schools to provide better continuity and progression in the education of more able and talented pupils;
- R2 improve the use of data and assessment to identify, track and monitor the progress of more able and talented pupils and share this information with all staff and relevant parents;
- R3 provide enriched opportunities and appropriately challenging provision across the curriculum for more able and talented pupils to achieve the highest standards:
- R4 ensure that more able and talented pupils from disadvantaged backgrounds receive specific support to overcome barriers to their learning;
- R5 provide mentoring for more able and talented pupils to help them make the best extra-curricular, option and career choices;
- R6 train school leaders, teachers and support staff on how to address the needs of more able and talented pupils and use networks of professional practice to share best practice; and
- R7 improve parents' understanding of how they can better support the education of their more able or talented child.

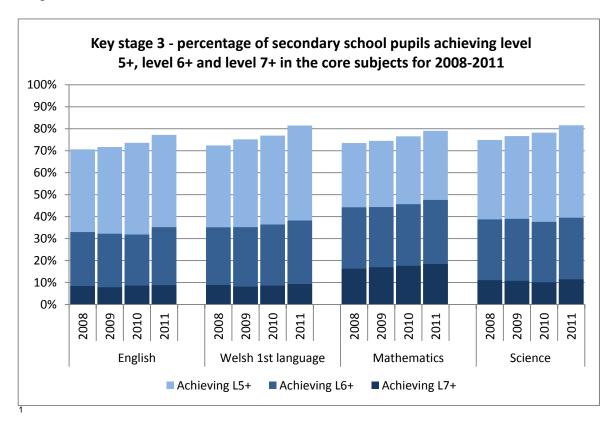
Local authorities should:

- R8 train school improvement officers on how to identify, support, track, monitor and evaluate the progress of more able and talented pupils; and
- R9 use data more effectively to evaluate trends over time in the achievement of more able and talented pupils.

1 Standards achieved by more able and talented pupils

Key stage 3

Her Majesty's Chief Inspector's Annual Reports for 2008-2009 and 2009-2010 highlighted the underachievement of more able and talented pupils and said that there was a need for schools to do more to help more able pupils to achieve their potential. Too few secondary pupils in Wales achieve above the expected level for their age (level 5) in end-of-key-stage 3 teacher assessments in the core subjects of English or Welsh, mathematics and science.

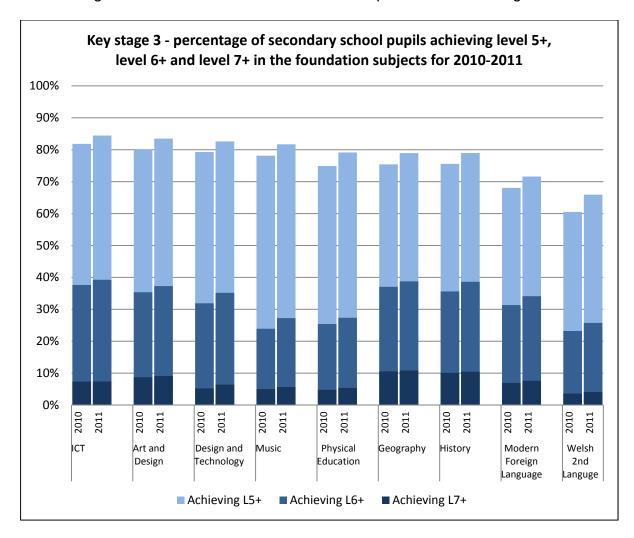


- 23 Between 2008 and 2011, the proportion of pupils attaining level 5 at the end of key stage 3 improved steadily in all core subjects along with the proportion of pupils attaining level 6 in mathematics. However, there has been very little increase in the percentage of pupils attaining level 7 or above in English or Welsh and science. The number of pupils attaining level 7 or above in mathematics has increased steadily since 2008 and is significantly higher than in the other core subjects.
- In key stage 3, the proportion of pupils achieving the expected level for English, mathematics and science is lower in Wales than in England. In 2010, the percentage of pupils in Wales achieving the expected level in English was 72% compared to 79% in England, in mathematics it was 75% in Wales compared to 80% in England, and in science 77% in Wales compared to 80% in England.²

¹ The charts for key stage 3 include maintained secondary schools only

² Assessment and Examination Performance in Wales: Comparison with England and its Regions, 2010

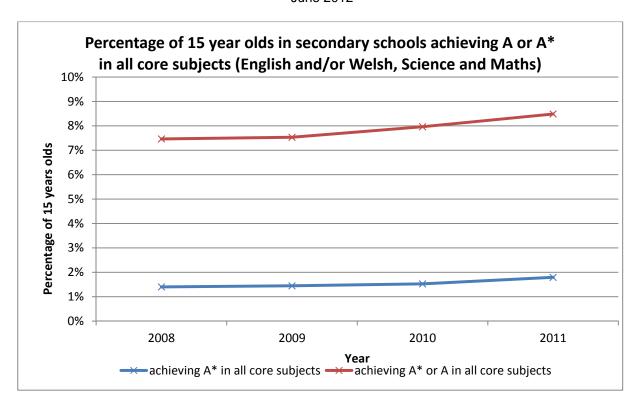
In addition, the proportion of pupils achieving level 6 or above in English, mathematics and science was lower in Wales than in England in 2010 and 2011. In 2011, the percentage of pupils in Wales achieving level 6 or above in English was 35% compared to 47% in England, in mathematics it was 47% in Wales compared to 59% in England and in science 39% in Wales compared to 51% in England.



There is greater variability in 2010 and 2011 in the percentage of pupils achieving level 6 or above across the foundation subjects than in the core subjects and significantly fewer pupils achieve level 6 or above in a minority of foundation subjects including music, Welsh second language, physical education and design and technology.

Key stage 4

27 Too few secondary pupils in Wales are achieving the higher GCSE grades A* or A in the core subjects of English and/or Welsh, science and mathematics. There was very little increase in the percentage of 15-year-old pupils attaining these grades between 2008 and 2010, though there was a recent improvement from 8.0% in 2010 to 8.5% in 2011. A higher percentage of girls than boys have achieved A* or A grades during this period. In 2011, 9.9% of girls achieved these grades in comparison to 7.1% of boys. It is difficult to directly compare the achievements of pupils in Wales with those in England, as the data is measured differently.



- The Programme for International Student Assessment (PISA) report assesses the performance of students at 15 years of age in schools across more than 50 OECD (Organisation for Economic Co-operation) countries. The 2007 and 2010 PISA reports identify that in Wales a significant proportion of students attain standards below the UK and OECD average in reading, mathematics and science and the mean score of students in Wales is significantly below that of students in England.
- Both reports also find that the proportion of 15-year-olds achieving the highest levels in mathematics and reading is below the OECD average. The report concludes that, compared to the top-performing countries in the world, Wales has few high achievers.
- 30 Standards achieved by more able and talented pupils in a few of the schools surveyed show that all these pupils are achieving higher levels and grades than expected at the end of key stages. This is often the result of having a whole-school focus on improving the attainment of more able and talented pupils. In these schools, all pupils are challenged to reach their potential and encouraged to have high aspirations. Teachers expect pupils to achieve the best they can.
- In the minority of sessions observed during this survey where the quality of pupils' achievements is very good, pupils are highly motivated, eager to learn, highly challenged to meet their potential and encouraged to think creatively. More able and talented pupils speak confidently and maturely and adapt their style effectively to suit the context, subject matter and audience. Many express opinions convincingly and support these opinions effectively with thoughtful, reasoned arguments.

2 Provision for more able and talented pupils

Policy and leadership

- Policy for more able and talented pupils in secondary schools has been shaped by the Welsh Government and NACE documentation. The majority of schools have a clear and succinct policy, which is reviewed and updated regularly and circulated to key stakeholders. However, a significant minority of schools either have not updated their policy or do not communicate their policy and practices for supporting more able and talented pupils effectively enough. A few schools circulate, along with the policy, effective procedures for more able and talented pupils in the form of a toolkit that includes subject-specific suggestions and teaching approaches that are appropriate for more able and talented pupils. A majority of policies define the roles and responsibilities of staff but very few mention the role and responsibilities of parents and pupils themselves.
- Nearly all schools have a named more able and talented co-ordinator who oversees more able and talented provision across the school. In the few schools with very good provision, the co-ordinator has received appropriate training for the role. The responsible person is either a senior school leader or closely line managed by a member of the senior management team
- A few schools have established more able and talented working parties, leadership groups or focus groups to develop the profile of more able and talented pupils further within the school and to provide training for the whole school. One school visited as part of the survey has set up a network of professional practice with two local schools in their family of schools and have organised an 'Able Pupils Conference'. Other schools are working together to target more able and talented pupils in specific subjects such as science and mathematics.

Curriculum and transition

- More able and talented pupils in the few schools with very good provision have access to a flexible and challenging curriculum with a wide range of curricular choices. They also have access to appropriately challenging extra-curricular activities, which enrich and enhance their learning. These schools promote individualised or personalised approaches to learning, and ensure that more able and talented pupils have access to specialist teachers and control over how and what they learn, as well as mentoring sessions to support them in making extra-curricular, option and career choices. More able and talented pupils gain from opportunities to work with other more able and talented pupils.
- 36 Case studies 3, 5, 7 and 9 in appendix 1 provide examples of how schools have adapted their curriculum to provide greater challenge or breadth of activities for more able and talented pupils.
- 37 Transition arrangements between the majority of primary and secondary schools do not provide enough continuity and progression in the education of more able and talented pupils. Secondary schools ask their feeder primary schools for data

regarding pupils' outcomes, but do not evaluate how this information is used by individual subject teachers in planning to challenge more able and talented pupils to achieve their potential across all subject areas.

- Only a few secondary schools ask teachers in primary schools to identify more able and talented learners in Year 5 and Year 6 using agreed criteria. Very few secondary schools ask parents of pupils in Year 6 to identify areas where their children are more able and talented or arrange more able and talented transition days, projects or summer schools. These arrangements, where they exist, result in better outcomes for these pupils.
- 39 **Case study 4** in **appendix 1** shows how Ysgol Gyfun Bro Morgannwg in the Vale of Glamorgan identified more able and talented pupils early and improved transition arrangements.

Resourcing and additional support and challenge for schools

- In the most effective schools, additional financial and human resources are allocated to the provision for more able and talented pupils. Pupils appreciate having excellent resources and value additional support from specialist teachers and tutors. Some schools offer withdrawal groups for more able and talented pupils in Years 7, 8 and 9 to extend and challenge their learning in specific fields such as literacy or numeracy. A few schools seek grants to fund programmes and projects for more able pupils and, if successful, continue with the funding when the grant runs out. Easy access to staff during lunch hours and after school is a key factor in providing additional support. Schools that provide personalised learning paths for pupils ensure that additional support is inherent in the curriculum. Effective pastoral support with members of the senior management team, as well as staff and parents working together, is a key factor to ensure the wellbeing of more able and talented learners.
- 41 **Case study 8** in **appendix 1** shows how St Joseph's Roman Catholic High School in Newport extended the literacy skills of pupils who are more able and talented.
- More able and talented pupils benefit significantly from additional extra-curricular provision aimed specifically at developing their abilities and talents and providing opportunities to work with other able and talented pupils. These include events such as playing in county orchestras, studying accredited courses at colleges and universities and working alongside artists, poets and authors. The extended 14-19 curriculum increases the opportunities for more able and talented pupils to work alongside more able pupils from other schools and colleges. Pupils have good access to specific guidance regarding option choices and career paths, appropriate enrichment activities and specialist vocational courses. However, access to additional provision that is relevant to the needs of more able and talented pupils varies greatly across secondary schools in Wales.
- Case study 6 in appendix 1 shows how Ysgol Gyfun Bro Myrddin in Carmarthenshire worked in partnership with University of Wales Trinity St David to enhance provision for Year 11 and Year 12 pupils.
- A few schools provide very good revision seminars and packages that are designed specifically for more able pupils such as GCSE A/A* workshops. They also arrange

mock interviews for pupils in Year 11 and Year 13 by experts in the fields where individual pupils show ability or talent. They offer additional support for Oxbridge candidates.

About half of the pupils who took part in the survey considered lack of time to be the main barrier to their involvement in the enrichment opportunities and activities on offer. A few more able and talented pupils struggled with making choices, prioritising extra-curricular activities and time management and valued targeted support or mentoring sessions, by trained staff, to deal with these issues.

Identification, assessment and tracking

- In schools where more able and talented pupils achieve high standards the identification, assessment and tracking process is rigorous and well embedded. These schools use a combination of formative assessment, standardised testing, staff observation, professional opinion, information from primary schools and pupil and parental questionnaires to identify and diagnose the strengths and particular talents of more able and talented pupils. Where parents and pupils are not involved in the identification process, schools are not always aware of the talents of all their pupils.
- 47 **Case study 2 in appendix 1** shows how Y Pant Comprehensive School improved their identification, assessment and tracking and provision for a group of Year 7 more able and talented pupils.
- Some of the secondary schools surveyed are addressing the issue that primary schools do not identify more able and talented pupils early enough and do not always use consistent criteria for their identification by working with them to agree shared identification criteria. The majority of secondary schools have clear criteria for the identification of more able and talented pupils and this includes, in a minority of schools, subject-specific criteria produced by individual departments. However, following identification, schools do not always ensure that information about pupils' abilities and talents are shared with all staff to ensure that pupils are appropriately challenged to achieve their potential across the curriculum.
- 49 Senior managers and middle leaders in the minority of schools analyse pupil data, including that for more able and talented pupils, closely and systematically. They identify whether pupils are on track or are underperforming and set them appropriately challenging and motivational targets throughout all key stages. A rigorous evaluation of data ensures that all learners achieve their full potential.
- One school surveyed is planning to introduce individual educational plans (IEPs) for the more able and talented pupils to assist with monitoring and analysing the effectiveness of the provision and the progress these pupils make. Another school has introduced an individual challenge plan (ICP) for more able and talented pupils. This enables the more able and talented co-ordinator to monitor individual pupil progress effectively and provides a basis for discussion during the co-ordinator's mentoring sessions with the pupils.
- Many of the schools do not track more able and talented pupils effectively as a group of pupils.

Role of parents and carers

- Very few schools visited as part of the survey involve parents in the identification process of more able and talented pupils or offer advice to parents on how to support their children. Around half of the schools inform parents when pupils are identified as being more able and talented. A very small minority of pupils identified by schools are often overly encouraged by their parents to perform at a level that is beyond them.
- Many schools are seeking appropriate ways to increase the involvement of parents. In one school surveyed, more able and talented seminar sessions are highly valued by parents and well attended. In a few schools where there is close liaison with parents of more able and talented pupils, parents are very much involved, and often support the school in delivering extra-curricular activities. One school is in the process of producing a newsletter to update parents of more able and talented pupils on developments, celebratory news and advice on how to support their children.

The outcome of close involvement with parents, according to pupils in one school, is that parents do not become 'over pushy'. They have a clear understanding of the provision and support that is available and how best to support them at home. Other pupils appreciate the close liaison with parents when pressures from outside school and within school get too much for them. This is often the case when they are involved in a number of enrichment activities.

3 Local authority support and challenge for schools

- There is too much variation across Wales in the support and challenge that local authorities provide. A few local authorities have effective, experienced co-ordinators with well-established systems in place to support the work of schools in this area. Nearly all authorities have a school improvement officer with overall responsibility to act as a co-ordinator to improve the achievement of more able and talented pupils. However, the resources devoted to their work are limited, and a few co-ordinators are new in post and not known to the schools. Most schools receive very little specific support.
- A minority of local authority co-ordinators arrange training programmes for school staff, using the expertise of a specialist from NACE. These programmes provide high-quality training that is welcomed and appreciated by co-ordinators and staff in secondary schools. A few authorities use schools that have achieved the Challenge Award as the main source of support for other schools.
- Only a few secondary schools in Wales have been awarded the NACE Challenge Award and very few local authorities actively encourage schools to be assessed. Many feel that the preparation of the portfolios required as part of the assessment process is too burdensome and costly. Nevertheless, where local authorities have encouraged schools to undertake the assessment, it has proved beneficial and has ensured that the whole school has focused on teaching and learning, provision and improving outcomes for more able and talented pupils.
- A few local authorities have formed focus groups that meet regularly to discuss how to improve provision for more able and talented pupils in secondary schools. They are often linked to whole-school management of more able and talented pupils, subject-specific provision or skills. They enable schools to share good practice, to develop policies, organise special events and produce training materials and resources.
- Case study 1 in appendix 1 shows how the secondary science focus group organised by Caerphilly local authority helped to share practice and develop the skills of more able and talented pupils.
- Nearly all local authorities offer a wide range of additional activities for more able and talented pupils. These include county music ensembles, writing 'squads', youth theatre and sporting activities. Many of these activities are delivered by specialist teachers, poets, musicians and local artists. However, some local authorities are in the process of reducing the number of courses because of reduced funding. A small number of pupils find funding, mainly travel costs, a barrier to attending these additional activities.
- 60 Local authorities have a range of teacher assessment and examination data about the achievements of more able and talented pupils. However, local authorities do not use the data they have available to them effectively enough to evaluate the progress made by more able pupils across the authority and challenge schools.

4 The impact of Welsh Government strategy

- The Welsh Government strategy for more able and talented pupils has had a direct impact on how the majority of the authorities and schools surveyed address the needs of more able and talented pupils.
- In 2006, the Welsh Government committed £50,000 to develop quality standards for the education of more able and talented pupils, published in 'Meeting the Challenge: Quality Standards in Education for More Able and Talented Pupils'. The funding also provided training for local authorities and schools, and supported the cost of The Challenge Award and training for local authority assessors. The Welsh Government has approved funding of a further £30,000 to facilitate further training and support, from NACE, between 2010 and 2013. This has enabled NACE Cymru staff, together with NACE Trustees, to produce a training pack of materials based on the quality standards. It is designed for use by more able and talented co-ordinators and consists of six development sessions for staff, one for parents and one for governors.
- The guidance and standards provide a practical way for schools and local authorities to audit their provision and raise standards achieved by more able and talented pupils. They have been used by an increasing number of schools and local authorities to raise the profile of more able and talented pupils. However, a few local authorities and a significant minority of schools have not responded as effectively as they could have done to the Welsh Government's guidance. Consequently, they have not made enough progress in improving provision or in raising the attainment of more able and talented pupils.
- Conferences and training have been provided by the Welsh Government and NACE and representatives from most local authorities have attended. These national conferences and training provide good opportunities for schools and local authorities to share ideas and best practice and to raise questions with specialists in the field. The impact of this training on schools has been varied. Where local authority advisers have disseminated advice and training successfully, schools in the authority have improved the provision for their more able and talented pupils. However, too often this has not been sustained because personnel who originally received training have moved on and their successors have not always received training.
- The quality standards are used well in nearly all schools where provision for the more able and talented is good. Documentation is used effectively to guide and support staff in their work with more able and talented pupils. Senior leaders and co-ordinators use it to design training materials and, as a result, schools and teachers have received consistent messages about how to improve provision.
- Many of the schools visited as part of this survey use the guidance as a self-evaluation tool to audit their provision for more able and talented pupils. These schools report that the nationally agreed standards provide them with a sound basis from which to work. In these schools, the quality standards have focused the school's efforts on ensuring high standards for pupils, bringing staff together in their understanding of the importance of consistency throughout the school, celebrating their success with parents and the community, and sharing their experiences with other schools.

- In the most successful schools and local authorities, strategies to use with more able and talented pupils have been developed over many years. They have used the quality standards to help to audit and refine their practices further and, in a few cases, prepare for assessment for the Challenge Award.
- Only a very few secondary schools across Wales have chosen to be assessed for the National Association for Able Children in Education Challenge Award, awarded to schools which reach the standards in 'Meeting the Challenge: Quality Standards in Education for More Able and Talented Pupils' (Welsh Assembly Government/ National Association for Able Children in Education, 2008). Currently four secondary schools have gained the Challenge Award and one of these has been reaccredited. Most of the schools that have achieved or are working towards the Challenge Award have developed good and sometimes excellent provision that in nearly all cases results in improvements in pupils' standards.

Appendix 1

Case study 1: Local authority support for developing the provision for more able and talented pupils in secondary schools – Caerphilly local authority

Context

Part of the authority's secondary more able and talented programme for 2010 to 2011 included the development of skills through a tailored programme of science events to take place at host schools.

Activity

A local authority secondary adviser formed a working party with two subject leaders for science to discuss specific areas linked to areas of study. They then met with subject leaders from each of the secondary schools in the authority to discuss the proposed activities.

The first event involved Year 10 pupils and was based on the topic of 'The Environment and Endangered Animals'. Teachers accompanied more able and talented pupils to a host school where they were given the opportunity to work with teachers and pupils from neighbouring schools. They shared knowledge and ideas and researched and prepared a range of materials that could be incorporated into a series of lessons for Year 7 pupils. To support them with this task they had the opportunity to listen to a leading expert in the field of caring for endangered species and to engage in a hands-on experience with selected animals. Pupils interested in developing their information and communication technology (ICT) skills photographed and filmed these experiences, editing and creating a supporting DVD that was incorporated in Year 7 lessons.

A second event involved more able Year 12 pupils and was based on 'Forces – The Science and Engineering behind Aircraft Flight'. One secondary school acted as a host school and the science department within this school worked with the pupils to explore aircraft design. The target for the activity was to create group presentations that could be taken back to individual schools and shared with others. Pupils, working in teams, engaged in activities using a variety of source material, including web-based Rolls Royce animations, actual aircraft body parts, radio-controlled model aircraft and pre-prepared information sheets. During the day, pupils visited a local aircraft-engine maintenance factory to talk to apprentices and to ask questions that would help them to enhance their understanding of flight and complete their group presentations. Pupils were also given the opportunity to explore materials used to construct the body of an aircraft and its engines and to consider a career as an aircraft engineer.

Good and excellent features

The good and excellent features include:

 the local authority's commitment to the education of more able and talented pupils;

- the support given by the local authority adviser/co-ordinator to improve whole school planning and provision for more able and talented pupils; and
- increased levels of challenge within schools for more able and talented pupils.

Impact and benefit

As a result of this work:

- there is greater collaboration between the local authority and the schools and between schools themselves with regards to planning, development and evaluation of opportunities for more able and talented pupils to develop their talents and skills;
- good links are developed with the community aimed at supporting pupils' skills development;
- there is greater awareness amongst staff within the schools of the needs of pupils and the opportunities they need to provide for individuals and groups of pupils; and
- schools make good or better provision for more able and talented pupils, resulting in improved standards.

Case study 2: Identification, assessment, tracking and improving provision for a group of Year 7 more able and talented pupils from 2006 to 2011 – Y Pant Comprehensive School

Context

Y Pant Comprehensive School is an English-medium 11-18 mixed school in Rhondda Cynon Taf with 1,256 pupils on roll. Thirty per cent of pupils are identified as being more able and talented. The school has received the NACE Challenge Award.

Activity:

- in 2006-2007, a group of Year 7 more able and talented pupils were identified and withdrawn for one hour a fortnight for mathematics, English and science;
- in 2007-2008, the school set up a successful more able and talented working party to work alongside the school's teaching and learning forums;
- during 2008-2009, the school produced their first register of more able and talented pupils and whole school training was provided for staff on creating more challenging learning experiences for more able and talented pupils;
- from 2007 onwards, the school established links with other schools and with NACE Cymru;
- from 2009 onwards, an assertive mentoring scheme was introduced;
- from 2009 onwards, the level of challenge provided for the more able and talented group of pupils was closely monitored by the school; and
- in 2010-2011, parents and carers of the pupils in the group were informed that they had been placed on the school's more able and talented register.

Good and excellent features

The good and excellent features include:

- tracking of a group of more able and talented pupils across the school;
- targeted mentoring of a group of more able and talented pupils;
- additional provision for more able and talented pupils;
- creative and innovative teaching and learning approaches;
- · whole-school focus on more able and talented pupils;
- strong links with schools within the authority, in other authorities in Wales and schools in other countries; and
- close links with NACE Cymru.

Impact and benefit

As a result of this work:

- 15% of the pupils gained 10 A and A* grades in GCSE in 2011;
- there has been a marked improvement in the pupils' level of confidence and aspirations; and
- there has been expansion in enrichment and extra-curricular activities.

Case study 3: Accelerated provision in Welsh for more able and talented pupils – Treorchy Comprehensive School

Context

Treorchy Comprehensive School in Rhondda Cynon Taf has 1,597 pupils on roll from a wide range of social backgrounds. The school provides a challenging curriculum for all its pupils. Twenty-five per cent of pupils are identified as more able and talented in various areas of the curriculum. The school has received re-accreditaion for the NACE Challenge Award.

Activity

The school employs two Welsh teachers who work in the local, English-medium primary schools. These teachers identify approximately 40 Year 6 pupils each year who are more able in Welsh as well as other areas of the curriculum. These pupils follow the 'cwrs carlam', a fast track system in Years 7, 8 and 9. There are usually no more than 20 pupils in each class. Pupils study humanities, physical education and personal and social education bilingually and they are offered additional subjects, such as Spanish. They sit some GCSE subjects early: Welsh second language and Spanish in Year 9; mathematics in Year 10; and AS Welsh second language in Year 11.

Good and excellent features

The good and excellent features include:

- excellent opportunities for pupils to gain additional qualifications because of their ability to sit some GCSEs and AS levels early;
- the higher level of fluency in Welsh achieved by a significant minority of pupils in each year group than they would achieve in a traditional English-medium secondary school; and
- the achievement of higher levels of oral communication skills in English and Welsh by most pupils receiving this provision.

Impact and benefit

As a result of this work:

- GCSE outcomes for these pupils are excellent. In 2011:
 - ➤ 91% of the group achieved A*-C in mathematics in Year 10 (a year early);
 - ➤ 100% achieved A-B in Welsh second language in Year 9 (two years early); and
 - ▶ 90% achieved Welsh second language AS (a year early).

Case study 4: Transition arrangements and identification of more able and talented pupils – Ysgol Gyfun Bro Morgannwg

Context

Ysgol Gyfun Bro Morgannwg is a designated Welsh-medium school for pupils between the ages of 11 and 18. The school is situated in the Vale of Glamorgan and has 837 pupils on roll. The school is committed to challenging all pupils to achieve the highest standards. Forty per cent of the pupils are identified as more able and talented. The school has received the NACE Challenge Award.

Activity

Excellent transition arrangements from key stage 2 to key stage 3 include:

- transfer of attainment data, which is used well by the secondary school;
- identification of pupils who are more able and/or talented by Year 6 teachers;
- parents of pupils in Year 6 given the opportunity to identify areas where their children have a particular ability or talent;
- shared learning experiences and workshops for more able and talented pupils across key stage 2 and key stage 3; and
- three thematic transition days, which help teachers in the secondary school to identify more able and talented pupils.

In key stages 3, 4 and 5, teachers use subject-specific criteria to continue to identify more able pupils. The school has a register of more able and talented pupils, which

is shared with all staff. Parents are told if their son or daughter is identified as more able or talented; they are kept fully informed about their progress and understand how they can better support the education of their child.

Good and excellent features

The good and excellent features include:

- excellent relationship with the primary schools;
- successful transition arrangements for more able and talented pupils;
- excellent identification procedures; and
- successful involvement of parents in the identification of more able and talented pupils and the education of their children.

Impact and benefit

As a result of this work:

- more able pupils achieve levels that are well above the levels expected for their age;
- in 2011 90% of the more able pupils achieved level 7 at the end of key stage 3 in all subjects and 14% achieved level 8;
- talents, in areas which include music, drama and sports, are exceptionally well developed; and
- more able and talented pupils achieve their full potential.

Case study 5: Accelerated curriculum for more able and talented pupils in mathematics and science in key stage 3 – Ysgol Gyfun Cwm Rhymni

Context

Ysgol Gyfun Cwm Rhymni is a designated Welsh-medium 11-18 secondary school in Caerphilly. The school has 1,432 pupils on roll and is situated in an area of high social deprivation. Twenty per cent of pupils are identified as being more able and talented.

Activity

The school identified 20 more able and talented pupils in science and mathematics in each of Years 7, 8 and 9. There are 62 pupils involved and 38 of these are girls. They are taught separately as a 'STEM' (science, technology, engineering and mathematics) group, at the same time as their tutor group has mathematics and science. They are taught by female teachers who act as role models.

Good and excellent features

The good and excellent features are that:

- tasks are extended and challenging;
- pupils cover the whole key stage 3 curriculum in Years 7 and 8 in science and carry out more specialised experiments in years 7 and 8 in readiness for starting the GCSE science courses in Year 9;
- there is a lunchtime STEM club and STEM challenges;
- the school has set up links with the University of Glamorgan and 13 pupils are attending a three-day residential course at the university; and
- pupils have opportunities to enter university mathematics competitions and the CREST award.

Impact and benefit

As a result of this work:

- participation with STEM subjects has increased;
- · pupils' aspirations are raised;
- there is a clear and definite impact on standards;
- at the end of Year 9, all the pupils achieved level 7 or above in mathematics and science (twopupils achieved level 8 in mathematics and 13 achieved level 8 in science); and
- results for physics module 1 and biology module 1 at the end of Year 9 are outstanding.

Case study 6: Extending and enhancing the provision for Year 11 and Year 12 more able and talented pupils – Ysgol Gyfun Bro Myrddin

Context

Ysgol Gyfun Gymraeg Bro Myrddin is a designated 11–18 Welsh-medium school with 900 pupils on roll. Twenty per cent of the pupils are identified as being more able and talented.

Activity

The school works closely with the University of Wales Trinity Saint David to extend and enhance the provision for more able and talented pupils:

- pupils in Years 11 and 12 who are more able and talented in drama, Welsh, English, ICT and music have the opportunity to study the 'Creating a Creative Wales' level 4 course to develop their creative skills; and
- pupils in Year 12 have the opportunity to study the 'Aiming High' level 4 course to further develop their literacy skills.

Good and excellent features

The good and excellent features of the 'Creating a Creative Wales' course include:

 pupils develop good skills in scripting, creating, editing, communicating, presenting, filming and ICT.

The good and excellent features of the 'Aiming High course include:

• pupils develop good skills in writing, presenting information, research work, referencing and critical thinking.

Impact and benefit

As a result of the work completed on the 'Creating a Creative Wales' course:

- many pupils gain the level 4 qualification;
- a few pupils gain a level 4 qualification in Year 11;
- pupils show improved attainment in Year 12 and Year 13; and
- pupils are better prepared for higher education.

As a result of the work completed on the 'Aiming High' course:

- many pupils achieve level 4 qualification;
- pupils improve their extended writing skills and this is shown in course work and the Welsh BAC assessments; and
- pupils who study science improve their writing skills.

Case study 7: Activity 1 targeted curriculum development for more able and talented pupils in science and activity 2 introducing a variety of 'seed-funding' initiatives for more able and talented pupils – Newbridge School

Context

Newbridge School is an 11-16 mixed, community school with 877 pupils on roll. The school is committed to the success and excellence of all pupils. This is featured in the school's motto – inspire, succeed, excel – and underpins the school's focus on outcomes, learning and opportunities. Provision for more able and talented pupils is embedded within this ethos.

Activity 1

The school analysed three-year trends in GCSE dual-award science and following discussions with more able and talented pupils, parents and staff, the head of science and the school's more able and talented co-ordinator identified the need for further challenge for more able pupils.

The curriculum model at key stage 4 was changed to allow more able and talented pupils to choose an additional GCSE science subject. Pupils studied two separate

science subjects in dual-award core science lessons and the third science subject was studied as an additional option. Both core and option science classes were mixed-ability and although the curriculum change was aimed primarily at more able and talented pupils, all pupils could choose a third GCSE science subject.

Good and excellent features

The good and excellent features include:

- a strong ethos of high expectations and high standards of more able and talented pupils;
- the shared understanding of pupils, parents and staff that more able and talented pupils are challenged and supported to achieve their full potential; and
- improved outcomes for more able and talented pupils.

Impact and benefit

As a result of this work:

- results in the three separate sciences in GCSE examinations have been outstanding and the average levels of 'A*/A' grades across the three separate subjects is almost 50%; and
- there has been an increase in the number of more able and talented pupils who move on to study science in further education.

Activity 2

The school wanted to increase enrichment and extra-curricular activities for more able and talented pupils in key stage 3 and key stage 4. Following discussion with staff and pupils, the school provided a small amount of 'seed funding' for initiatives that would improve provision for more able and talented pupils. As a result, a variety of enrichment initiatives were introduced. They included:

- a National Shakespeare Festival drama society production;
- an artist in residence jewellery-making workshop; and
- a poet in residence working with more able and talented pupils to produce pupils' poetry books.

Following initial funding, the performance and product sales from each of these initiatives were full-cost returns for the school. Funds raised are now being used to further extend 'seed funding' enrichment activities for more able and talented pupils/all pupils.

Good and excellent features

The good and excellent features include:

- the school's strong ethos of high expectations and high standards; and
- the shared understanding of pupils, parents and staff that more able and talented pupils will be challenged and supported to achieve their full potential.

Impact and benefit

As a result of this work:

- the school makes better provision for a wider range of more able and talented pupils;
- many of the 'seed funding' initiatives have become embedded in to the school's enrichment activities for more able and talented pupils/all pupils; and
- nearly all pupils sustain their interest further than the 'seed funding' stage of these new initiatives, further improving their motivation, independent learning and opportunities for progression.

Case study 8: Extending the literacy skills of pupils who are more able and talented in English – St Joseph's Roman Catholic High School

Context

St Joseph's Roman Catholic High School is in Newport and has 1,500 pupils on roll from a wide range of social and ethnic backgrounds. The school is committed to providing individualised learning experiences for all pupils.

Activity

The school uses a higher level teaching assistant to extend the literacy skills of pupils who are more able and talented in English. The assistant visits all partner primary schools and works closely with primary teachers to identify Year 6 pupils who are more able and talented in English. The reading test results and end of key stage 2 data are also analysed during the identification process. The assistant withdraws the pupils in groups in Years 7, 8 and 9 to study a variety of additional literature to extend their thinking skills and develop their higher-order literacy skills.

Good and excellent features

The good and excellent features include:

- efficient use of resources for the benefit of more able and talented pupils;
- effective use of key stage 2 data and transition information to target more able pupils;
- providing appropriately challenging literacy activities that sustain the interest of more able pupils; and
- regular opportunities for more able pupils to read and discuss a wide variety of literature outside their usual experience in small, focused groups.

Impact and benefit

As a result of this work:

- most pupils progress very well in English throughout key stage 3 and achieve high standards in oracy, reading and writing; and
- most pupils who attend these groups go on to achieve A* in English at GCSE.

Case study 9: Introducing GCSE astronomy to the school curriculum – Castell Alun High School

Context

Castell Alun High School is in Flintshire and has 1,330 pupils on roll. Pupils come from a wide range of social backgrounds and a significant minority are from advantaged families. The school offers an extended curriculum by working in close partnership with other local providers.

Activity

A science teacher with a particular interest in astronomy teaches GCSE astronomy to a group of Year 10 and Year 11 pupils who have been identified as more able and talented in science. Lessons take place after school two days a week. This is the fourth year that the course has run and this year it has attracted 27 pupils, 22 from Castell Alun and five from other, local secondary schools. The teacher has acquired grants totalling £2,500 to purchase equipment and resources. The school has forged strong, professional links with science educators from the Institute of Physics, the National Schools Observatory and the Royal Astronomical Society. These links significantly enhance the experience of the pupils involved.

Good and excellent features

The good and excellent features include:

- effective use of staff interests, knowledge and skills;
- high expectations of the pupils who are provided with complex, scientific challenges;
- a high level of commitment from the pupils involved;
- opportunities for more able and talented scientists to work together to develop higher-order problem solving and thinking skills; and
- the provision of training and support in teaching astronomy GCSE at another local secondary school, which has led to 15 more able and talented pupils from the other school following the course from September 2011.

Impact and benefit

As a result of this work:

- most pupils who sit the GCSE examination in astronomy achieve 'A*-B' grades;
- pupils who follow the astronomy course achieve better results in mathematics and physics;
- one pupil from the first group to study astronomy moved on to study physics and astronomy at university; and
- one pupil was selected to give evidence at the Parliamentary Select Committee hearing on the future of Astronomy and Particle Physics.

Appendix 2

Evidence base

In producing this report, inspection evidence from secondary inspection reports has been used and end of key stage 3 data for the period 2008-2011 and key stage 4 data for the period 2009-2011 have been considered.

A representative sample of 15 secondary schools across Wales and five local authorities were visited and written evidence from most local authorities in Wales taken into consideration.

Pupils' views have been obtained by asking a sample of pupils in all the schools visited to complete questionnaires and by speaking to a sample of pupils during the visits. The views of parents were gathered by speaking to a sample of parents in most of the schools visited. A representative of the National Association for Able Children in Education (NACE) was interviewed.

The following literature was reviewed:

- 'A Curriculum of Opportunity: Developing Potential into Performance' (ACCAC 2003);
- 'Meeting the Challenge: Quality Standards in Education for More Able and Talented Pupils' (WAG/NACE 2008);
- Bradshaw, J., Sturman, L., Vappula, V., Ager, R. and Wheater, R. (2007).
 'Achievement of 15-year-olds in Wales: PISA 2006 National Report (OECD Programme for International Student Assessment)' Slough: NFER;
- Bradshaw, J., Ager, R., Burge, B. and Wheater, R. (2010). PISA 2009: 'Achievement of 15-year-olds in Wales'. Slough: NFER;
- PISA report 2006 and 2010;
- NACE case studies of Welsh schools who have achieved or are working towards the NACE Challenge Award; and
- NACE evaluations of the training programme provided for schools and local authorities.

Information was also acquired from European countries who are members of the Standing International Conference of Inspectorates.

Recent relevant Estyn reports

- 'Supporting more able and talented pupils in primary schools' (Estyn 2011)
- 'Innovation in key stage 3' (Estyn 2010);
- 'Ensuring all learners achieve their potential: an evaluation of local authority strategies' (Estyn 2010);
- 'Transition plans and grant: an evaluation of the impact of transition plans on primary and secondary school partnerships at key stage 2 and key stage 3' (Estyn 2010);
- 'Improving numeracy in key stage 2 and key stage 3' (Estyn 2010);

- 'A report on the quality of initial teacher training in additional learning needs and working with others' (Estyn 2009);
- Estyn Annual Report 2009, 2010 and 2011; and
- 'Supplementary guidance for inspectors: more able and talented learners' (Estyn 2010).

Appendix 3 – How different European countries and regions support more able and talented pupils – Netherlands, Scotland, Malta and North Rhine-Westphalia

Many of our European counterparts are also seeking the most effective way to educate their more able and talented pupils. The strategies below are relatively new. As a result, no firm conclusions can be drawn about the relative success of the different approaches.

Pupils in the Netherlands aged four to 12 years who have an IQ of 130 or higher can attend a Leonardo school. The Leonardo curriculum is designed to suit the interests and abilities of these very able pupils. The school uses specialist teachers to provide lessons in English from the age of four and Spanish from the age of eight, as well as philosophy, computer science, mathematics, business and enterprise. Pupils make decisions about what they want to learn and there is an emphasis on pupils learning to learn. Lessons in social skills, music and dance are important features of the curriculum and pupils learn to play games of strategy, such as chess. The school provides all pupils with a laptop computer with wireless internet access to use at school and at home to improve their IT skills and to encourage the use of new media.

In Scotland, schools are encouraged to meet the needs of more able and talented pupils in class through matching the work closely to their needs and abilities. The University of Glasgow provides support for teachers, more able pupils and their families through the Scottish Network for Able Pupils (SNAP) website. They offer advice to schools and teachers on how to provide appropriate challenge and undertake research and dissemination of funding to the educational community in Scotland and further afield. Scotland has six national centres of excellence, schools which allow more able and talented pupils to maximise their potential. The centres are located within comprehensive schools from which pupils gain a broad general education whilst receiving additional time for specialist study.

In Malta there is a specialised programme for pupils with an interest and keen aptitude for mathematics. The activities, organised in collaboration with the Department of Mathematics, Faculty of Science, University of Malta, provide these high-achieving pupils with hands-on learning experiences. The topics presented target different aspects of mathematics that are not included within the secondary school mathematics curriculum. Currently around 120 pupils in state and non-state schools attend these two-hour activities spread upon six sessions over the school year. At the end of each year, pupils who have attended regularly are awarded a certificate. Malta is in the process of writing a new curriculum that is intended to raise the level of attainment of all pupils. The traditional concept of having a syllabus that is time

tabled is being replaced by the concept of a curriculum that is managed. The new curriculum will encourage diversity, pupil-centred learning and self-assessment and is expected to help teachers to improve the quality of their teaching.

In North Rhine-Westphalia state of Germany, schools are expected to produce individualised support programmes directed especially towards pupils who are more able and talented. Many schools, especially the Gymnasium grammar schools, have a number of programmes designed to provide the high-achievers with extra support. They include: teaching additional languages; pupils attending the class ahead and finishing courses early; bilingual tuition where at least one non-linguistic subject such as history is taught in a foreign language; extra musical classes and experiences; extra focus on mathematics; engineering; natural sciences; technology and sports. Pupils can attend project groups across the school and attend classes or lectures at a nearby university and gain university-entrance qualifications early. During the holidays students attend 'summer academies' where mathematics, science and engineering are taught at university level.

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