An assessment of special educational needs (SEN) workforce development requirements

Final report

PEOPLE AND WORK UNIT
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Ariennir gan **Lywodraeth Cymru**
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An assessment of special educational needs (SEN) workforce development requirements

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Views expressed in this report are those of the researcher and not necessarily those of the Welsh Government.

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1. Introduction

1.1. In November 2013 the Welsh Government commissioned the People and Work Unit to undertake an Assessment of Special Educational Needs (SEN) Workforce Development Requirements.

The aim and objectives of the study

1.2. The aim of the assessment is both to establish the current skills base of the education workforce[1] in relation to support for children and young people with SEN and to identify and prioritise development needs.

1.3. The objectives of the study are to:

- provide Welsh Government with an evidence base of the workforce development needs necessary to support children and young people with different types of SEN[2] within mainstream schools, including how this fits with current national strategies and approaches;

- undertake a skills analysis of the current general education workforce in respect of providing support to children and young people with different types of SEN;

- identify approaches to tackling gaps in the current skills base, including identification of examples of best practice that can be used to encourage people to undertake appropriate training and ensuring national strategies and approaches related to different types of SEN are taken into account;

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[1] The study focused upon all general education staff involved in any aspect of identification, assessment, intervention and provision of support for a child or young person with SEN, including the (SENCo), teachers, support staff and school leaders.

[2] Guidance to support the recording of pupils' SEN on School Management Information Systems identifies the broad categories and descriptors of SEN. This guidance document can be accessed at: http://wales.gov.uk/topics/educationandskills/publications/circulars/1979851/?lang=en

- review outcomes from previous initiatives and projects aimed at providing support for children and young people with different types of SEN, to enable the consideration of whole school approaches to particular SEN types; and

- explore opportunities available for special schools, special school teachers and other supporting professionals to be used as a potential resource, or to provide outreach services for assisting mainstream schools with meeting the needs of pupils with learning difficulties and behaviour management problems.

This report

1.4. This report focuses upon the findings in relation to these five objectives. Following a brief outline of the context (section two) and the study methodology (section three), section four discusses the study findings in relation to the skills of the general education workforce (addressing objectives one and two) and section five discusses approaches to tackling skills gaps (addressing objectives three, four and five). Section six summarises the conclusions of the study.

1.5. In addition to the aim and objectives, the specification of this study identified thirty-four detailed research questions. These related almost exclusively to the first two objectives (focused upon establishing the skills base and development needs). A substantial volume of data addressing these questions was generated by the survey of the education workforce, the qualitative research and the literature review. This has informed the publication of this report and this data has been made available to Welsh Government.

2. Context

2.1. Children have SEN if they have a learning difficulty which calls for special educational provision to be made for them. The Special Educational Needs Code of Practice for Wales (NAfW, 2004) outlines how a SEN should be met and the responsibilities of different education staff members, such as school teachers, support staff, special education needs co-ordinators (SENCos) and school leaders. Nevertheless, there is considerable inconsistency across Wales and reform of the statutory framework for SEN is planned[3] (WG, 2014a).

2.2 The number of pupils with SEN is increasing slowly but steadily[4] and currently approximately a fifth of the school age population have some sort of SEN. As a consequence, the number of pupils with SEN in mainstream schools has increased and concerns have been raised about whether staff in mainstream schools have the skills needed to meet these pupils' needs (Norwich & Nash, 2011; Feeney et al., 2010; Hodkinson, 2009; Clough & Garner, 2003). Although fewer concerns have been raised about the skills of staff in special schools, the severity and complexity of the needs of pupils they are working with is reported by staff to be increasing[5] (Ellis et al., 2012).

2.3 Educational outcomes for pupils with SEN are improving and Estyn inspections of schools give a positive assessment of ALN provision[6], particularly in special schools, but also identify broader weakness in teaching and learning (for all pupils) (Estyn, 2012, 2013, 2014, 2015).

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[3] The White Paper outlining the proposals to introduce a new legislative framework for supporting children and young people with ALN can be accessed at: http://wales.gov.uk/consultations/education/proposals-for-additional-learning-needs-white-paper/?lang=en

[4] For example the proportion of pupils with a SEN has increased from 18% in 2003/04 to 22% in 2012/13 (Source: Schools Census, available on StatsWales).

[5] This is identified by research in England (Ellis et al., 2012) and by the qualitative research for this study in Wales.

[6] This is a broader category than SEN, but is used as Estyn do not distinguish between SEN and ALN provision in their reports.

3. Study approach and methodology

3.1. This report draws upon data gathered from three sources:

- a survey of the general education workforce;
- qualitative research with schools and key stakeholders; and
- a desk based literature review.

3.2. The rest of this section provides some methodological detail about the way information was gathered from these three sources and provides guidance on how the results presented in the rest of this report should be interpreted.

The survey of the general education workforce

The questionnaire

3.3. The survey used a predominately online self completion questionnaire (a paper based version was available on request). The main areas covered by the questionnaire were:

- the role held by the respondent and the type of school worked at;
- qualifications, experience, training and guidance;
- knowledge of SEN roles and responsibilities;
- confidence in relation to the identification of, assessment of and support for pupils with SEN;
- confidence in relation to differentiation; and
- specific questions for school leaders, SENCos and teaching assistants.

Administration of the survey

3.4. The survey was implemented in three phases over eight weeks from the 2nd of June 2014 to the 25th of July 2014. An invitation to education staff to complete

the questionnaire was sent to around half of primary schools, all secondary schools, all special schools and all pupil referral units (PRUs) in Wales. The invitation was sent to the headteacher with a copy to the SENCo, and invited all education staff in the school to respond to the survey. Each of these schools was provided with a unique link to the questionnaire to enable monitoring of the characteristics of schools responding. Local authority inclusion officers and teaching and school workforce unions were engaged with in order to encourage participation. Two weeks later, a generic link to the online questionnaire was sent to all the remaining primary schools that were not part of the initial monitored group.

Responses rates for different staff groups

3.5. In total, 2.4% (n=1,226) of the workforce[7] completed the questionnaire. It is estimated that the staff who completed questionnaires were drawn from around 340-370 schools, representing around 20% of all maintained schools in Wales (n=1,603). Table 1 outlines the target sample sizes identified for the survey along with the actual sample sizes achieved.

3.6. This report draws on the responses to the survey, analysed into four sub-groups of the general workforce: leaders, teachers, support staff and SENCos (or where applicable, ALNCos[8]). However, given relatively low response rates in some sub-groups, the sample is not broken down into further sub-groups (such as special school and mainstream leaders or primary and secondary school teachers).

[7] I.e. teachers, support staff, SENCos/ALNCos and school leaders in mainstream schools, special schools and pupil referral units.
[8] In some settings, the SENCo role is fulfilled by the ALNCo.

Table 1. Staff group populations, target and achieved sample sizes

Staff group	Total population	Sample size (target)		Sample size (achieved)	
	No.	No.	%	No.	%
School leaders in mainstream schools	3,567	186	5	272	8
School teachers in mainstream schools	22,791	1,019	4	313	1
School support staff in mainstream schools	21,776	1,017	5	245	1
SENCos in mainstream schools	*1,593**	*175**	*11*	*235*	*15*
Special school leaders	130	N/A**	N/A**	34	26
Special school teachers	568	60	11	31	6
Special school support staff	1,889	55	3	38	2
PRU school leaders	Unavailable	N/A	N/A	8	N/A
PRU teachers / tutors	Unavailable	N/A	N/A	9	N/A
PRU support staff	Unavailable	N/A	N/A	14	N/A
Other (not specified)	N/A	N/A	N/A	27	N/A
Total	**50,721**	**2,337**	**4.6**	**1,226**	**2.4**

*Estimate, assuming one SENCo per school. N.B the total population of mainstream teachers includes SENCos

**Population too small to develop a valid sample size

Source: Welsh Government 2014, PWU SEN workforce survey 2014

The strengths and weakness of the survey

3.7. The survey had some important strengths. For example, the questionnaire was comprehensive: the total number of responses (1,226) relatively large in absolute terms and the total number of schools taking part (estimated to be 340-370) was also relatively large. Responses were received from all twenty two of the local authority areas of Wales, providing good geographical

coverage. Analysis of the characteristics of schools taking part[9] indicated that on key measures, including the proportion of pupils eligible for free school meals, the proportion of pupils on the SEN register and the language medium of the schools, they were broadly similar (or representative) to those of all schools in Wales.

3.8. Nevertheless, there are several caveats and limitations that need to be borne in mind when interpreting the responses to the survey. These include:

- the low overall response rate achieved;
- the relatively wide confidence intervals (or margin of error) for the four sub-groups (of between 5% to 7%).
- the reporting of combined responses from staff groups in primary, secondary and special schools, which may mask some sectoral differences;
- a possible bias in the sample as it is likely that staff who work most closely with pupils with SEN and/or who have an interest in SEN, were more likely to have responded than staff who did not; and
- in addition, although as noted, responses were received from all twenty two of the local authority areas of Wales, the response rates for these areas ranged from 0.7% to 6.5% of their total staff population. Therefore there may be a bias in the responses from staff in particular regions of Wales.

3.9. Given these caveats, the findings should be treated as **'indicative'** rather than 'definitive' or 'statistically representative'. However the survey results are not presented in isolation but are supported by findings from the literature review and the qualitative research.

[9] This analysis was possible for around half the schools in the sample.

Qualitative research

3.10. The qualitative research focused upon the same questions as the survey[10], but enabled them to be explored in more depth and detail. It included a focus on five local authority areas (Carmarthen, Gwynedd, Merthyr Tydfil, Newport and Powys)[11] with interviews and visits to twenty-eight schools. Of these, six were special schools, fifteen were primary schools, five were secondary schools, one was a nursery school and one was a PRU. In addition to the visits to learning settings, eighteen interviews were held with key stakeholders involved in training, local authority inclusion services, policy development and/or quality development in education personnel and members of the Third Sector Additional Needs Alliance (TSANA) were also engaged.

Desk based literature review

3.11. The desk based literature review included a purposive review of key studies and literature identified through the scoping phase as being of interest to the study, such as Estyn reviews of ALN provision and a systematic review of selected databases.

[10] Because questions were asked in different ways, responses from the qualitative research and the survey are not directly comparable.
[11] The areas included South, Mid, West and North Wales and represented different types of contexts, including urban, peri-urban and rural areas and differing levels of socio-economic disadvantage.

4. The skills of the general education workforce

Introduction

4.1. In order to assess the skills base of the workforce and to identify workforce development needs, the study focused upon three areas:

- the impact of professional learning from initial training onwards, upon staff skills and knowledge;
- staff confidence that they have the skills and knowledge expected of them; and
- independent assessments of the quality of provision for pupils with SEN (as a proxy measure of staff skills and knowledge).

Professional learning

Initial training

4.2. The impact and effectiveness of initial teacher training (ITT) upon staff skills and knowledge is mixed (Tabberer, 2013; Chaney, 2012). There is evidence (from England and Northern Ireland) that the extent to which ITT equips staff with SEN skills and knowledge has weaknesses (Carter, 2015; Hodkinson, 2009a; Nash and Norwich, 2008; Winter, 2006). There is also evidence from a number of studies (in England) that teaching placements that involve supporting learners with SEN (as part of ITT) are more effective in developing skills and confidence than university-based learning (see e.g. Carter, 2015; Norwich and Nash, 2011, Nash and Norwich, 2008; Feeney, Gager and Hallett, 2010; Richards, 2010; Ofsted, 2008). A review of Initial Teacher

Education or Training (ITET) in Wales is currently underway, and is expected to report in 2015[12].

4.3. Headteachers are required to meet the standards outlined in the Leadership Standards [13]. Nine of these standards specifically focus on SEN and/or ALN.

4.4. There is no mandatory preparatory training for support staff or SENCos in Wales[14]. Support staff skills (in Wales) can be assessed through the Higher Level Teaching Assistant (HLTA)[15] scheme, with successful candidates achieving HLTA status. As well as requiring a general knowledge of education policy and practice, three of the HLTA standards refer directly to SEN or ALN.

Training and qualifications

4.5. The survey identified that the majority of staff have undertaken 'on the job' training in relation to SEN. SENCos were most likely to report having had training in relation to SEN, followed by school leaders, support staff and then teachers (who were the least likely). This is illustrated by table 2, which presents responses in relation to cognition and learning needs. Looking across all four types of SEN:

- members of all four staff groups in the survey were less likely to report having had training in relation to sensory and physical SEN, compared to other types of SEN; and
- in relation to each of the four categories of SEN, a large number of staff reported that they have had no specific SEN related training.

[12] The review is expected to propose significant changes to the way ITET is delivered in the future, including implications for course content.
[13] The leadership standards are set out in the Welsh Government's revised professional standards for education practitioners in Wales guidance (WG, 2011, Circular 020/2011).
[14] Newly appointed SENCos in England are required to have a SEN Award.
[15] The HLTA is not mandatory for all support staff.

Table 2. Staff confidence in relation to identifying or assessing cognition and learning needs (the number and percentage of responses from each staff group)

	SENCo/ALNCo (n=229)		Leads (n=276)		Support (n=276)		Teachers (n=350)	
	No.	%.	No.	%.	No.	%.	No.	%.
Yes - identification and/or assessment	137	60	97	35	50	18	73	21
Yes - in relation to provision	135	59	118	43	80	29	142	41
Yes - other type of training	39	17	36	13	61	22	53	15
No	25	11	69	25	69	25	115	33
Don't know	0	0	2	1	19	7	7	2

**The percentages in each column can add up to over a hundred percent as staff could select more than one option (e.g. Yes in relation to assessment and Yes in relation to identification).*
Total number of responses to the question =1,131
Source: PWU SEN workforce survey (2014)

4.16. The key barriers highlighted in this study to accessing training were cost and time and to a lesser degree, the lack of training opportunities.

4.17. The survey for this study and the research in England (Ellis et al., 2012) both indicate that the number of school staff with qualifications or accreditation specifically relating to SEN is relatively low.

4.18. Qualitative research for this study identified a consistent view across all staff in schools visited that, although formal models of professional learning such as training or qualifications could help, they were not sufficient: skills and knowledge needed to be consolidated and extended through practice.

Other models of professional learning

4.19. Both The Future Delivery of Education Services in Wales (Hill, 2013) and the Improving Schools in Wales (OECD, 2014) reviews highlight the key role that

other (non-training based) models of professional learning, such as professional learning communities (PLCs) and coaching and collaboration between staff and settings, should play in improving teaching and learning in Wales. This approach is similar to the National Model of Professional Learning[16], which underpins the New Deal for the education workforce[17] .

4.20. The New Deal includes an emphasis upon teachers taking responsibility for their own professional learning. Qualitative research for this study and research in England (Ellis et al., 2012) both identify that staff are doing this and that they seek support from other staff within the school, such as SENCos, and/or undertake their own research and reading to help fill gaps in their skills and knowledge. This could be considered to be an informal model of professional learning. It is an example of a needs led approach in which staff undertake professional learning where and when it is needed. We discuss this needs led approach to professional learning further in section five.

4.21. Sharing practice is another key feature of the New Deal and the qualitative research for this study also identified a range of other informal professional learning activities, including observation of practice in other settings and mentoring. In one of the case study areas (Powys), collaboration between special schools and mainstream schools was well established. However, across all the learning settings visited, very few examples of more formal models, such as PLCs, were identified.

The focus of professional learning

[16] http://wales.gov.uk/about/cabinet/cabinetstatements/2014/nationalmodelprofessionallearning/?lang=en

[17] The New Deal aims to ensure that 'practitioners have wider access to high quality development activities to support their practice' and in return, 'requires the profession to take greater ownership and responsibility for their own ongoing professional development' and sharing their professional practice with others (Welsh Government, 2014b, p.12)

4.22. The qualitative research for this study identified that much professional learning, such as training, is responsive, driven by the specific needs of children and young people in the learning setting at a particular time. This approach enables staff to consolidate and extend their skills and knowledge by applying what they have learnt. However, it means that staff skills and knowledge in relation to different types of SEN are uneven. For example, as outlined above, generally staff had less experience and had undertaken less professional learning in relation to low incidence types of SEN such as sensory and physical needs. Staff do not need specific knowledge of these lower incidence SEN until they encounter a pupil with these needs. However, it is likely to mean they are less skilled in identifying these types of SEN (increasing the risk that the SEN is missed or not supported appropriately).

The confidence of the school workforce

4.23. The survey focused upon measuring staff confidence (a subjective belief in an ability to perform their role effectively)[18]. As table 3 illustrates, the survey identified that members of the general education workforce are generally confident that they have the skills and knowledge needed to identify and support pupils with SEN.

[18] The study focused upon self-confidence because studies indicate self-reported measures of self-confidence tend to be more valid and reliable than self-reported measures of ability (e.g. Dunning and Kruger, 1999). A focus upon self-confidence was also intended to reduce 'social desirability bias' as it was felt that teachers would be more willing to acknowledge a lack of confidence rather than a lack of ability.

Table 3. Staff confidence on selected measures of their skills and knowledge (the number and percentage of responses from each staff group)

Assessing a pupil with a SEN's strengths and weaknesses	SENCo/ALNCo (n=225)		Leads (n=250)		Support (n=237)		Teachers (n=349)	
	No.	%.	No.	%.	No.	%.	No.	%.
Strongly agree	108	48	101	40	69	29	66	19
Agree	97	43	110	44	109	46	163	47
Neither agree nor disagree	9	4	28	11	31	13	59	17
Disagree	9	4	8	3	19	8	45	13
Strongly disagree	0	0	0	0	2	1	6	2
Don't know / not sure	2	1	3	1	7	3	10	3

Identifying targets and outcomes for pupils with a SEN	SENCo/ALNCo (n=226)		Leads (n=233)		Support (n=199)		Teachers (n=292)	
	No.	%.	No.	%.	No.	%.	No.	%.
Strongly agree	109	48	89	38	48	24	61	21
Agree	98	43	126	54	101	51	158	54
Neither agree nor disagree	14	6	15	6	32	16	41	14
Disagree	3	1	3	1	12	6	26	9
Strongly disagree	2	1	0	0	2	1	3	1
Don't know / not sure	0	0	0	0	4	2	3	1

Tracking the progress of groups of pupils with different types of SEN	SENCo/ALNCo (n=226)		Leads (n=233)		Support (n=199)		Teachers (n=292)	
	No.	%.	No.	%.	No.	%.	No.	%.
Strongly agree	93	41	90	39	46	23	50	17
Agree	111	49	125	54	98	49	145	50
Neither agree nor disagree	14	6	14	6	30	15	53	18
Disagree	7	3	2	1	14	7	32	11
Strongly disagree	1	0	0	0	4	2	6	2
Don't know / not sure	0	0	2	1	7	4	6	2

Providing professional guidance and support to colleagues	SENCo/ALNCo (n=228)		Leads (n=239)		Support (n=216)		Teachers (n=287)	
	No.	%.	No.	%.	No.	%.	No.	%.
Strongly agree	94	41	84	35	53	25	43	15
Agree	109	48	127	53	93	43	95	33
Neither agree nor disagree	14	6	15	6	47	22	57	20
Disagree	9	4	13	5	15	7	72	25
Strongly disagree	0	0	0	0	4	2	14	5
Don't know / not sure	2	1	0	0	4	2	6	2

Source: PWU SEN workforce survey (2014)

4.24. The level of confidence identified by the survey is comparable to findings of studies in England[19] of the confidence of teachers in identifying and

[19] Differences in the questions used mean neither study is directly comparable. (Micklewright et al., 2014).

supporting pupils with SEN[20] (Ellis et al., 2012) and of their confidence assessing and motivating pupils[21] (Micklewright, et al., 2014).

4.25. In the survey, across all the questions, SENCos were the staff group most likely to be confident in relation to SEN, followed by school leaders, then support staff and teachers (who were the least confident). Staff in special schools were the most confident, followed by staff in primary schools and staff in secondary schools (who were the least confident). There was little difference in the confidence of staff in English and Welsh medium settings.

4.26. Studies indicate confidence is linked to experience and training (Ellis et al., 2012; Male, 2011; Feeney et al., 2010; Winter, 2006; Monsen and Fredrickson, 2003). Findings from the survey support this: staff groups with more experience and more training in relation to SEN, such as SENCos or teachers in special schools, are more confident than staff groups with less experience and training, such as teachers in mainstream schools. Similarly, members of all staff groups are less confident in relation to lower incidence SEN, where they tend to have less experience and have had less training.

4.27. Staff confidence is important. Studies indicate that staff that lack confidence are less likely and less willing to include pupils with SEN[22] (Winter, 2006, citing Bandura (1986); Monsen and Frederickson 2003). However, if staff have misplaced confidence, they may over-estimate their skills and knowledge and are less likely to undertake professional learning or to change their practice. In the following section we therefore consider whether staff

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[20] The study identified that of 1500 teachers in mainstream schools (in England): 77% were confident they were able to identify the learning needs of pupils with SEN in the class(es); 60% were confident they could effectively assess the progress of pupils with a range of SEN in their class(es) and 50% were confident they could effectively teach pupils with a range of SEN in their class(es). (Ellis et al., 2012).

[21] The study identified that amongst almost 2,500 teachers, 91% were confident they could 'use a variety of assessment strategies'; 90% were confident that they could 'craft good questions' for their students and 84% were confident that they could 'implement alternative educational strategies' in their classroom. This focused upon all pupils rather than just pupils with a SEN.

[22] For example, Monsen and Frederickson (2003) have identified a correlation between positive attitudes towards inclusion and the amount and level of training a teacher has had in SEN.

confidence in their abilities is well founded, by considering evidence of the quality of educational provision for pupils with SEN.

Evidence on the quality of educational provision: is staff confidence in their skills well founded?

4.28. Although quality of provision is not a direct measure of workforce skills and knowledge, the skills and knowledge of the workforce are critical factors that influence the quality of provision (Hill, 2013; Barber and Mourshed, 2007). Therefore, if staff confidence in their skills is well founded, we would expect to see a correlation between staff confidence and the quality of provision.

4.29. The evidence on schools' effectiveness in identifying SEN is mixed. Estyn judgments on the identification of ALN by schools are generally positive[23] (Estyn, 2012, 2013, 2014, 2015). However schools' use of data (which is critical in identifying if pupils are not making progress) has historically been mixed (Estyn, 2008); there are continuing weakness in assessment of pupils' progress (Estyn, 2015); and rates of identification (of SEN) vary considerably across local authorities from 14.9% in Wrexham to 31.3% in Pembrokeshire.

4.30. The evidence of staff confidence (which is relatively high) and of the effectiveness of identification of SEN and assessment of pupils' progress and needs (which is more mixed) is not completely consistent but can be reconciled, indicating that staff confidence in identification of SEN is reasonably well founded. The distinction between identifying that a child is not making the expected progress and identifying the nature of a child's SEN is important here. As outlined in table 3, many staff are confident and Estyn inspections indicate many mainstream schools are generally effective in identifying that a pupil is not making expected progress. In contrast, as outlined in table 3, staff are less confident in identifying the reasons why a pupil is not making progress (such as an unmet SEN) and assessing needs.

[23] For example Estyn inspection of primary and secondary schools over the last three years indicates that at least 70% of schools (rather than staff) identify ALN* effectively and that in over 70% of primary and secondary schools inspected, providing for ALN is good or better. (Estyn, 2012, 2013, 2014). * This is a broader category than SEN, but is used as Estyn do not distinguish between SEN and ALN provision in their reports.

Staff are also less confident measuring the progress of pupils who are below national curriculum level 1.

4.31. Higher levels of staff confidence in identifying that a pupil may have a SEN, than in identifying the precise nature or type of need, or assessing needs, is consistent with evidence from England[24] (Ellis et al., 2012). This highlights the difficulties that staff experience in identifying and assessing some types of SEN (Ellis and Tod, 2012). Studies in England also highlight the impact that differences in the criteria used by local authorities and/or in the type of provision made[25], can make to rates of identification of SEN in different local authority areas (Ellis et al., 2012; Ofsted, 2010).

4.32. Evidence on the quality of schools' assessment and provision for children and young people with an identified SEN is mixed and weaknesses in teaching and learning practice have been identified; for example:

- Estyn inspections indicate that although ALN provision is generally good [26], particularly in special schools, there are significant weaknesses in teaching and learning (for all pupils) in pupil referral units, primary and secondary schools in particular (Estyn 2015, 2013, 2012, 2011);
- the Review of Education Services (Hill, 2013)[27] highlights both the need to improve teaching and learning in mainstream schools and, in contrast, the strength of special schools (based upon Estyn inspections); and

[24] A survey of over 1,500 teachers in England in 2012 identified that over three quarters of mainstream school teachers were confident identifying their pupils' learning needs. However, they were less confident identifying the specific type of SEN (Ellis, et al, 2012; Ellis and Tod, 2012).
[25] For example, what is considered normal provision in one school may be considered 'additional' and 'different' in another setting (Ellis et al., 2012).
[26] This is a broader category than SEN, but is used as Estyn do not distinguish between SEN and ALN provision in their reports.
[27] http://wales.gov.uk/docs/dcells/consultation/130621- delivery-of-education-report-en.pdf

- the OECD review of schools in Wales (OECD, 2014)[28] highlights weaknesses in teaching and learning and in particular, in differentiation, personalisation (drawing upon PISA data) and formative assessment[29] (drawing upon Estyn inspections).

4.33. This evidence indicating weakness in assessment and provision for pupils with SEN is therefore at odds with staff confidence. However as table 3 illustrates, although this was an area where staff in the survey and teachers in particular were less confident, overall confidence levels were still high.

4.34. The focus of this study is upon SEN specific skills and knowledge and we cannot necessarily infer that weakness in teaching and learning for all pupils applies to pupils with SEN. Nevertheless, studies indicate that although there is a need to adapt principles and approaches to meet the needs of an individual child, there is no separate special education pedagogy (Carter, 2015; Norwich and Nash, 2011; Lindsay, 2007, citing Davis and Florian; Lewis and Norwich, 2005). Instead, there is a continuum of approaches in which: "teaching of pupils with SEN is conceived as mostly about the intensification of general teaching approaches relevant to all pupils" (Norwich and Nash, 2011, p.4). Therefore, weaknesses in staff skills in relation to, for example, assessment and differentiation for all pupils are likely to apply to pupils with SEN.

4.35. This evidence, together with evidence from some stakeholders interviewed for this study, indicates that staff skills in relation to assessment and differentiation is likely to be an area where staff overestimate their skills and knowledge. Nevertheless, it is important to bear in mind that this is not a specific gap in relation to SEN; it reflects a broader weakness in assessment and differentiation for pupils of all needs and abilities.

[28] http://www.oecd.org/edu/Improving-schools-in-Wales.pdf
[29] The review finds that: "adequate use of formative assessment and diagnostic instruments, for example, allows schools to better support those students with additional learning needs" (OECD, 2014, p.24)

5. Approaches to tackling skills gaps

Introduction

5.1. There are a number of approaches to tackling skills gaps. These include:

- strengthening initial training;
- improving access to information and guidance;
- extending or enhancing professional learning; and
- promoting collaboration within and between settings and services through previous and current initiatives such as Unlocking the Potential of Special Schools and the Lead and Emerging Practitioner programme.

Strengthening initial training

5.2. The weaknesses in ITT in relation to SEN (outlined in section four) are identified by a number of studies as cause for concern, particularly given the increasing numbers of pupils with SEN educated in mainstream schools (Ellis et al., 2012; Clough and Garner, 2003).

5.3. There is some evidence that enhancing the SEN content of ITT could help address gaps in teachers' SEN skills and knowledge (Carter, 2015; DCSF, 2009). For example, the recent review of ITT (in England) recommended: "introducing trainees to the most common issues they will encounter" such as ASD, Severe Learning Difficulties and Dyslexia, and "providing practical strategies for addressing these needs", as part of ITT (p. 35, Carter, 2015).

5.4. However, both the Carter review (ibid) and the qualitative research for this study indicate that any extension of the SEN content of ITT, can only offer a partial solution. This reflects, a number of factors including the breadth of SEN, the competing demands to include other types of skills and knowledge in ITT, and the need for SEN skills and knowledge to be consolidated and

extended through practice. Therefore, as the Carter review concludes, in addition to changes in the SEN content of ITT, there also needs to be: "a clear expectation of on-going development"[30] (ibid.).

5.5. Proposals (in Wales) to ensure that ITT better develops the skills of: "reflective practice and on-the-job research" (Tabberer, 2013) are consistent with the expectations of ongoing development, enshrined in the New Deal for the education workforce and the practice review and development (PRD) model. This approach should improve support for SEN and also support the effectiveness of action in other areas, such as improving access to information and strengthening joint learning (also integral parts of the New Deal), which we discuss below.

5.6. There is also evidence from a number of studies (in England) that teaching placements that involve supporting learners with SEN (as part of ITT) can be effective in strengthening teachers' SEN skills and knowledge. The evidence indicates that this is likely to be more effective at enhancing skills than extending the SEN content of ITT (see e.g. Carter, 2015; Norwich and Nash, 2011, Nash and Norwich, 2008; Feeney, Gager and Hallett, 2010; Richards, 2010; Ofsted, 2008). The two approaches (i.e. extending SEN content and placements that involve supporting pupils with SEN) are not mutually exclusive though and could be combined.

Improving access to information and guidance

5.7. Qualitative research for this study and research in England (Ellis et al., 2012) both identify that self directed research is a key approach that staff use to build their skills and knowledge in relation to SEN. Providing easy access to evidence based information and guidance, through initiatives like Hwb+ (the digital learning platform) and the Learning Wales website, is important and can help support other types of professional learning (Hill, 2013).

[30] As the review puts "it is critical to remember that ITT is indeed initial" (p. 43, Carter, 2015).

Extending and enhancing professional learning

5.8. Although ITT does not equip staff with all the skills they need, other studies (e.g. Ellis et al., 2012) and qualitative research for this study, both indicate that this can be compensated for by further professional learning, including training and more informal models, such as observation and coaching and professional learning communities (PLCs), approaches advocated by the Review of Education Services (Hill, 2013), the National Model of Professional Learning [31] and the practice review and development model (WG, 2013). Crucially, these approaches to professional learning enable skills to be developed and consolidated through practice (which, as outlined in section four, staff identify as vital).

5.9. By enabling joint learning, these types of approaches can be adapted to different contexts and needs. This is particularly important because the qualitative research for this study indicates that approaches that are effective in special schools will often need to be adapted to work effectively in mainstream settings. This reflects differences in mainstream and special school contexts and in the severity and complexity of needs of pupils in mainstream and special school settings.

5.10. By definition, this model of joint or collaborative learning requires sufficient expertise within schools and the wider education system. Therefore, it is likely to be less effective in settings where there is less experience and expertise. In these cases, collaboration with other settings and specialist services, which we discuss below, would be crucial.

5.11. The practice review and development model aims to integrate professional standards, performance management and professional learning (WG, 2013).

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31 http://wales.gov.uk/about/cabinet/cabinetstatements/2014/nationalmodelprofessionallearning/?lang=en

It applies to the whole school workforce (including teachers, school leaders, SENCOs and support staff) and aims to ensure that professional learning is focused upon the school's priorities and objectives, and on national standards and priorities (NAfW, 2011). Following the introduction of regulations in 2014[32] schools must set out in a school development plan (SDP) how they intend to deploy resources and develop their staff in order to meet these priorities.

5.12. Therefore, whilst as outlined above, school staff are expected to take increasing responsibility for their own professional learning, the focus of this learning should be agreed with the school, as part of the school's planning and performance management.

5.13. Because the focus of professional learning should be agreed with and supported by the school through the SDP, the qualitative research for this study highlights the importance of leadership within learning settings. Leadership was seen as crucial in creating cultures in which SEN was seen as a priority and a 'mainstream' issue (for which all staff had responsibilities) and where staff were encouraged and expected to both undertake professional learning and share their practice with others, to improve practice in relation to SEN. The critical role leadership plays in promoting staff development (including collaborative learning) has also been highlighted by Estyn (2015).

5.14. This study identifies that professional learning to develop more advanced and specialist SEN skills should be targeted at those staff who need it. The qualitative research for this study shows that a needs led approach to professional learning, coupled with specialisation, has important strengths and is commonly adopted by schools. This approach is focused upon targeting

[32] In October 2014 the Welsh Government introduced regulations on School Development Plans that schools are required to meet in full by September 2015.The School Development Plan is the school's single strategic plan for improvement. Further information can be accessed at: http://learning.wales.gov.uk/yourcareer/school-development-plans/?status=closed&lang=en

skill development when and where it is needed (e.g. when a pupil has a particular need) and it enables staff to apply and consolidate skills through practice (which the qualitative research identified as vital). It is an efficient way to ensure staff have the skills needed to identify and support pupils' SEN. It is also likely to be the only viable and sustainable model, because it would be very difficult and costly to ensure that all staff have this level of expertise. Nevertheless, its effectiveness cannot be taken for granted. For example, such an approach depends upon intelligent use of data (to ensure that pupils' needs are identified) and collaboration between different staff members (to ensure that expertise is shared and deployed and that staff can access timely support), which we discuss further below.

Strengthening collaboration within and between settings and services

5.15. The English SEN strategy from 2004, Removing Barriers to Achievement (DfES, 2004) proposed a three tier framework of skills in relation to SEN[33]:

- "core skills" that all teachers needed;
- "advanced skills", that some staff, such as SENCos, needed; and
- "specialist skills" that some staff within a "community of schools" needed (pp. 56-59).

5.16. This framework provides for a model of specialisation within settings and services (so that not all staff need to have expertise in relation to SEN). This study suggests that the need for more advanced and specialist skills and knowledge should be met through collaboration within settings and between settings and/or specialist SEN services. This is a type of collaborative approach to professional learning (discussed above) and is an approach advocated by the recent review of education services in Wales (Hill, 2013).

[33] This framework was endorsed by several of the studies identified by the literature review (Ellis et al., 2012; Oldham and Radford, 2011; Rix and Paige-Smith, A. 2011; Richards, 2010).

5.17. As outlined in section four, the qualitative research for this study indicates that this collaboration within and between settings or services is taking place, but collaboration within and between settings tends to be relatively informal. The qualitative research for this study identified whole-school approaches that demonstrated the three tier model. These included schools working with special schools and those that did not. The key elements included:

- the status and in school functioning of the SENCo and school inclusion team;
- the involvement and support of classroom staff, so there is easy and effective communication between them and the SENCo and inclusion team, or in smaller settings, regular discussion of the needs of individual pupils;
- effective involvement of parents/carers (for example, knowing how a child behaves at home was described as essential); and
- intelligent use of data to monitor progress.

5.18. There are also more formal models of collaboration. The Unlocking the Potential of Special Schools programme (discussed below) is one example of this type of collaborative model.

'Unlocking the Potential of Special Schools'

The Welsh Government funded project 'Unlocking the Potential of Special Schools' project provided £5.1 million funding over a three year period (2006-2009) to promote the use of special schools as community focused resource bases. The majority of the eighteen local authorities that accessed this funding used it for outreach work from special to mainstream schools, and training mainstream school staff. Estyn (2009) reported that the approach was effective in enabling schools to access specialist knowledge locally.

5.19. Looking beyond initiatives focused specifically upon SEN (such as Unlocking the Potential of Special Schools), knowledge exchange and inter-school collaboration has been hampered in the past by competition between schools and linguistic and geographical barriers (Humphreys, 2006). In response, initiatives such as the School Effectiveness Framework (SEF) for Wales (WAG, 2008), the creation of 'Families of Schools' in 2010[34] and the Lead and Emerging Practitioners Schools project[35] have been established. However, it is not yet known how effectively these models address SEN[36]. Moreover and more broadly, the review of education services in Wales identified that although progress has been made, and: "partnership between schools is growing. … much of the partnership culture is relatively shallow" (Hill, 2013, p.9). This indicates the potential difficulties in enhancing collaboration between settings.

5.20. In addition to collaboration between learning settings, there have been a number of initiatives focused on 'whole school' development to better support a particular SEN. These include 'Dyslexia Friendly' schools, 'Autism Friendly' schools and ELKLAN support for 'Communication Friendly' schools. All involve training and toolkits or other materials to help schools identify steps they can take to better support pupils. However, few initiatives have been evaluated independently. In qualitative interviews for this study staff saw them as useful but not central to the school's approach, and it is not clear how sustainable the impact is.

[34] These were created by grouping schools on the basis of the language used in the school and their score on an 'index of challenge'.
[35] There is a special school project within this programme linking high performing special schools with other special school or SEN units within mainstream schools. There is also SEN expertise within mainstream schools that could be shared through the initiative.
[36] SEN are not identified in the mid-term evaluation of the Lead and Emerging Practitioner school programme (WG, 2014c) and Schools Challenge Cymru has not yet been evaluated.

6. Conclusions

The workforce skills base

6.1. Education staff are generally confident in their skills and knowledge in relation to SEN. Taken together, the evidence from this study suggests that, with the important exceptions of assessment and differentiation, this confidence is reasonably well-founded. Crucially, although initial training, such as ITT, may not equip staff with the skills they need in relation to SEN, for most staff this gap is addressed through ongoing professional learning. However, a minority of staff across all staff groups and settings, still have gaps in their SEN knowledge and skills.

Staff development needs

6.2. Not all gaps in staff skills and knowledge equate to a development need. As outlined in section five, in broad terms there are three different types of skills and knowledge[37]:

- core skills and knowledge that all staff require;
- more advanced SEN skills and knowledge that some staff in every school need; and
- specialist SEN skills and knowledge that some staff in a school cluster and/or external SEN specialist services need.

6.3. Gaps in 'core' skills and knowledge are, by definition, a workforce development need (and priority). Many of these skills, such as skills in

[37] This is similar to the framework advocated in Removing Barriers to Achievement (DfES, 2004) (in England).

assessment and differentiation, apply to all pupils (and are not specific to pupils with SEN)[38] . Priorities highlighted by the study include improving:

- awareness of different types of SEN, to ensure that potential SEN are identified or recognised early, for staff in all types of settings;
- skills in assessing pupils' strengths and weaknesses, particularly for teachers in primary and secondary schools;
- skills and knowledge relating to differentiation, particularly for teachers in primary and secondary schools;
- improving knowledge and understanding of the Equality Act 2010 across all staff groups and types of settings; and
- improving knowledge and understanding of school SEN policies (including the role of the SENCo) and responsibilities under the SEN Code of Practice for Wales, amongst teachers and support staff in primary and secondary schools.

6.4. The proposed reforms of the statutory framework for SEN (Welsh Government, 2014a) also indicate future workforce development needs related to:

- involving children and young people and parents and carers in assessment, planning and review, particularly, but not limited to, support staff and teachers in primary and secondary schools;
- chairing multi-disciplinary meetings, particularly for the minority of SENCos and school leaders in all types of settings who lack confidence in this; and
- developing a more strategic role for SENCos in areas like monitoring and evaluating the use of SEN resources.

[38] As outlined in section four, studies indicate that although there is a need to adapt principles and approaches to meet the needs of an individual child, there is no separate special education pedagogy (Norwich and Nash, 2011; Lindsay, 2007, citing Davis and Florian, 2004; Lewis and Norwich, 2007).

6.5. In contrast, the gaps in advanced and specialist skills identified by this study do not necessarily create a workforce development need. The three tier model means not every staff member needs advanced or specialist skills in relation to all type of SEN, provided that where and when it is needed, the appropriate expertise can be accessed.

6.6. The extent to which gaps in advanced and specialist SEN skills create a workforce development need depend upon the ways in which expertise is distributed and deployed across settings and specialist SEN services (rather than just the proportion of staff with these skills, which was the focus of the survey). As a consequence, the gaps in advanced and specialist SEN skills and knowledge (highlighted by the survey and qualitative research) only become a problem when learning settings do not or cannot:

- deploy expertise within their own setting effectively;
- develop their own staff's skills and knowledge; and/or
- access staff expertise in other settings or specialist SEN services.

6.7. Because this study focused upon the skills of the workforce as a whole, assessing how effectively skills are developed and deployed in response to pupil needs was beyond the scope of this study. Nevertheless, one area does stand out because it would apply to a range of SEN and staff: namely, staff skills in measuring the progress of pupils who are below national curriculum level 1. This applies particularly to the minority of SENCos who lack confidence in this area and for teachers in special schools.

Workforce development: closing gaps in skills and knowledge

6.8. This study suggests that in order to ensure the workforce has the skills and knowledge needed to support pupils with SEN, the aim should be to ensure that all staff have core skills and can access more advanced and specialist skills and knowledge when they need to.

6.9. In order to fill gaps in core skills that all teachers should have, the evidence from reviews of ITT and the education system in Wales (outlined in section five), identifies that the approach should include actions to strengthen:

- ITT and in particular, increasing trainees' experience of working with pupils with SEN (Carter, 2015; Norwich and Nash, 2011; Feeney, Gager and Hallett, 2010) and action to ensure that teachers become reflective practitioners and take responsibility for their own professional learning (Tabberer, 2013);
- the information and guidance that staff can access (e.g. through Hwb+ and Learning Wales); and
- through greater integration with professional standards, and performance management (via the PRD model) and through increases in collaboration between staff and in joint learning (Hill, 2013).

This would be in line with the National Model of Professional Learning and the New Deal for the Education Workforce.

6.10. This study also highlights the importance of seeing many of the skills and knowledge that staff need to identify, assess and meet SEN as part of a continuum of staff skills, rather than as separate or different. Action to raise staff skills therefore needs to be firmly embedded within 'mainstream' professional learning and schools' planning and performance management processes. The school development plan provides a means by which professional learning needs related to SEN provision can be identified as part of each school's self evaluation and improvement cycle.

6.11. In some respects, the approach to filling gaps in advanced and specialist SEN skills is more complex. It is harder to identify where the gaps are (as the gaps depend upon the distribution of pupils with SEN and the distribution of staff with the advanced and specialist skills needed to meet those pupils' needs). However, the approaches to ensuring that those staff who need them have advanced and specialist skills, are clearer. In many respects, the approaches

are similar to those needed to address gaps in relation to core skills. They include in particular, creating a professional development model focused upon collaboration and joint learning with the aim of applying the learning and improving practice (Hill, 2013). This could include providing access to specialist SEN qualifications, particularly for those requiring specialist skills (DfES, 2004), and could be enhanced by linking it to other types of joint learning, such as coaching, mentoring and taking part in professional learning communities (Hill, 2013).

6.12. The approach outlined above to fill gaps in staff skills and knowledge is both a way of deploying the expertise within mainstream and special schools and specialist SEN services to meet the needs of individual pupils, and a way of enhancing the skills of the workforce. When it works well, it ensures that staff can access timely and effective support when they need it and the collaboration between staff, such as collaboration between those staff working directly with the pupil and those staff with more advanced and specialist skills and knowledge, offers the potential for joint learning. This study identifies though, that this model does not always work. Its effectiveness depends upon access to and deployment of advanced and specialist skills. Where for example, a SENCo lacks either skill or the relationship with staff necessary to enable joint learning, it can break down.

6.13. In summary, in order to close gaps in skills and knowledge in relation to SEN, and ensure that pupils' SEN are met, professional learning in its broadest sense is needed. This will range from a discussion with a colleague about a particular pupil's needs to more formalised models such as professional learning communities and lead practitioner arrangements that may tackle whole school or systemic issues[39].

[39] This is consistent with and informed by the research and analysis of Ellis et al., (2012) and Hill (2013).

6.14. This approach to workforce development will require action, leadership and support at all three levels (the Welsh Government, educational consortia/local authorities and individual settings) and should focus upon:

- preparation: ensuring that, as far as possible, staff have the core skills and knowledge required through, for example, including more experience in working with pupils with SEN in initial training;
- planning: identifying what, where and when more advanced and specialist SEN skills and knowledge are required and how they will be provided within a learning setting through, for example, effective transition planning and analysis of SEN data (to identify needs in advance) and school planning and performance management (to identify how needs will be met through professional learning);
- specialisation: identifying which staff need specialist skills and knowledge in order to meet the identified needs and how expertise in special schools and specialist SEN services can be accessed when needed, and professional learning (to ensure staff have the skills and knowledge required to fulfil their roles and meet specific needs);
- collaboration: ensuring that staff can access support from people with advanced and specialist SEN skills when needed and encouraging and enabling joint learning within and between settings and specialist SEN services; and
- evaluation: monitoring and identifying gaps in skills and knowledge and weaknesses in systems and processes for identifying, assessing and meeting SEN, and identifying how to fill them through professional learning.

6.15. Although some changes in structure and policy (such as ITT) will be required, the qualitative research highlighted, in particular, the importance of a leadership culture and ethos in learning settings. These factors are critical in cultivating an open and reflective learning culture and ensuring that SEN are seen as both a priority and a 'mainstream' issue by all staff.

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