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Making the invisible visible: Disciplinary literacy in secondary school classrooms

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Abstract

In Ireland, policy on literacy now aims to expand the role that post-primary teachers of all subjects have in developing students' literacy skills. This paper draws on data from a wider research study carried out in secondary schools in 2010 and focuses on the classroom support with disciplinary literacy provided by subject teachers for students who have literacy difficulties. A brief outline is provided of the context and perspectives informing the study as well as the research methods used. Findings are examined against the backdrop of policy developments for literacy at second level and within the context of wider policy change. Teachers' lack of professional knowledge, combined with barriers at wider system level, is identified as a significant challenge to pedagogical change at classroom level. Implications for policy implementation, for initial teacher education and for cultural change at school level are discussed. It is argued that literacy must be repositioned as a central aspect of subject pedagogy and teachers, as subject experts, supported in unpacking and sharing with students, the discourse practices and ways of viewing and communicating about the world that are characteristic of their academic disciplines.

Keywords: literacy strategy; disciplinary literacy; discourses; policy; pedagogy

Introduction

Poor literacy skills can have significant consequences for an individual's participation in education and in many aspects of life (Department of Education and Skills 2011). With literacy at the heart of subject disciplines, students in secondary schools must learn to be literate in a wide range of subject contexts which vary in style, vocabulary, text structure and purpose (Heller and Greenleaf 2007). Results from the 2009 Programme of International Student Assessment (PISA), however, show that over 17% of 15-year-olds in Irish secondary schools are at a level of reading literacy considered to be 'below the minimum needed to participate effectively in society and future learning' (Perkins et al. 2011).

This paper draws on data from a wider research study, carried out in secondary schools in 2010, and focuses on the attitudes and practices of subject teachers with regard to classroom support with disciplinary literacy for students who have literacy difficulties. Current conceptualisations of literacy recognise and include its sophisticated and context specific nature in addition to the basic literacy skills that can be generalised across all subject areas (Perkins et al. 2011). Disciplinary literacy 'is built on the premise that each subject area or discipline has a discourse community with its own language, texts, and ways of knowing, doing, and communicating' (Zygouris-Coe 2012, 38). Subject matter learning, therefore, involves becoming comfortable with the relevant discourse and is not merely about 'learning the stuff of the disciplines [but] about the processes and practices by which that stuff is produced' (Moje 2007, 10).

As disciplines 'differ extensively in their fundamental purposes, specialized genres, symbolic artifacts, traditions of communication, evaluation standards of quality and precision, and use of language' (Shanahan and Shanahan 2012, 9), subject learning requires 'scaffolding and mediation by teachers who know the content well and understand the role that language and literate practice play in producing knowledge within it' (Moje 2008, 103). This implies that all teachers have a responsibility to develop the context specific literacy

within their subjects. It is argued, therefore, that subject literacies are best taught by subject experts who apprentice students into meaning-making in their disciplines, as well as engaging in explicit instruction in order to empower students to learn interactively with texts (Sejnost and Thiese 2010; Shanahan and Shanahan 2008; Wray 2001).

Traditionally, however, attempts to integrate literacy and subject content learning have primarily focused on the development of generic strategies, considered applicable to texts in all contexts (Fisher and Ivey 2005). These have not always been welcomed by teachers. As current approaches are drawn from the disciplines themselves, placing a focus on disciplinary literacy ‘does not pose the same challenges to teachers whose self-actualization is tied to their identities as mathematics, science, English, or history educators’ (Shanahan and Shanahan 2012, 15). Consequently, the aim of disciplinary literacy is to support students in negotiating the literacy aspects and discourses of the disciplines.

Context

The declaration that ‘All teachers should be teachers of literacy’ contained in *Literacy and Numeracy for Learning and Life: The National Strategy to Improve Literacy and Numeracy among Children and Young People 2011-2020* (Department of Education and Skills 2011, 47), is belated recognition of the important role that post-primary teachers of all subjects have in developing students’ literacy skills. Actions to achieve this include mandatory pre-service and professional development support to enable teachers become ‘familiar with the various strategies, approaches, methodologies and interventions that can be used to teach literacy and numeracy as discrete areas and across the curriculum’ (Department of Education and Skills 2011, 31). In addition, teachers will be expected to use assessment data on students’ literacy performance at the end of second year in post-primary education to inform their teaching and set realistic targets for improvement.

These are significant developments, representing the first time at second level in Ireland that literacy has been given visibility as an integral part of all subject disciplines and a medium for accessing and communicating curriculum knowledge. Evidence elsewhere, however, reveals that attempts to infuse literacy instruction into subject content areas have had limited success with both pre-service and in-service teachers who view strategies with scepticism and rarely use them in classrooms (Cantrell and Callaway 2008; Fisher and Ivey 2005).

According to Moje (2008, 98), explanations for this can be found in the ‘knowledge, beliefs, or cultural values among teachers and students’ and in the structures of secondary schools themselves. Approaches which promote student-centred, active engagement in learning can, for example, be dismissed by teachers as a challenge to prevailing notions of traditional pedagogy (O’Brien, Stewart, and Moje 1995). Alternatively, generic strategies to support students in processing textbook information can be viewed by teachers as a time consuming additional burden in an overloaded instructional agenda (Perin et al. 2009). Pressure to transmit subject content in a timely and effective manner can, in turn, result in teachers orally transmitting textbook knowledge by relying on what O’Brien, Stewart, and Moje (1995, 451) refer to as the ‘pedagogy of telling’. As capable readers familiar with the dominant academic discourse, teachers may furthermore lack awareness of the mental processes by which they make sense of texts in their disciplines and are unable to appreciate the loss of agency experienced by poor readers (Alger 2007). Consequently, less time may be spent demonstrating explicitly what it means to be a good reader or writer in particular subject areas (Luke, de Castell, and Luke, 1989). In addition, teachers may lack efficacy in relation to literacy instruction because they have relatively little training in how to consciously integrate literacy strategies with subject content (Cantrell and Callaway 2008; Jacobs 2008; Siebert and Draper 2008).

In Ireland, there are additional reasons why teachers ‘may not have emphasised the teaching of literacy in their subject area lessons’ (Perkins et al. 2011, 2). Consideration of literacy at second level, for example, is predominantly located within deficit discourses which emphasise students’ difficulties and needs. In both secondary and primary schools, the traditional means of supporting students with literacy difficulties has been through the withdrawal of students for separate or individualised attention by specialists outside the classroom (Eivers et al. 2005, 2010; Fitzpatrick 2000; Shiel, Morgan, and Larney 1998). Transformation of policy and provision for special educational needs in recent years has further emphasised the practice of specialised support. The ‘functional deficiencies model of disability’ (Kenny, McNeela, and Shevlin 2003, 139), contained in the Education Act (Government of Ireland 1998) and maintained in the Education for Persons with Special Educational Needs Act (Government of Ireland 2004), focuses on the statutory provision of education services for children with a categorised disability. O’Gorman (2009, 220-21) maintains, however, that the student-deficit-led model, using withdrawal as the preferred *modus operandi*, places ‘responsibility for students with SEN firmly within the remit of the learning support/resource teacher’ and does little to ‘demand adjustment to class teachers’ practices.

The legislative and policy focus on special educational needs has deflected attention from the increasing number of students transferring each year from primary to secondary level with literacy difficulties. Currently there are no standardised tests of reading with Irish norms available for use in second level schools, and those tests that are used are administered mainly to first year students on entry. To what extent teachers draw on assessment data to inform planning, teaching or student learning is unclear (Shiel, Kellaghan, and Moran 2010), although it is acknowledged that such information ‘should be an essential source of reference

in planning the programme for junior cycle and in keeping track of students' progress' (Department of Education and Skills 2011, 78).

At present, students performing at or below the tenth percentile on standardised tests are given priority for supplementary literacy teaching, leaving those outside this range reliant on the remaining resources which individual schools can provide. One support available to second level schools is The Junior Certificate School Programme (JCSP) which emphasises a cross-curricular approach to literacy and promotes a culture of reading through school-based initiatives. Evaluation of the programme, however, finds poor attention to literacy in sample schools, with 45% of observed lessons either having 'scope for development' or 'requiring major improvement', and with no school having developed a whole school strategy for literacy (Department of Education and Science 2005a, 92).

Outline of study

A case-study approach involving three co-educational schools was adopted in this research study. Both urban and rural contexts were represented and schools ranged in size from 450 to 600 students. The Junior Certificate Schools Programme (JCSP) was offered in two of the three schools.

A sample of 3 students in each school was drawn from students identified by support teachers as having difficulties with literacy, but who did not meet criteria for having a recognised disability and entitlement to support (Department of Education and Science 2002). First year students were selected because of their greater likelihood of being taught in mixed ability settings (Smyth, McCoy, and Darmody 2004), and three girls and six boys agreed to participate in individual semi-structured interviews. Chronological ages on entry to secondary school ranged from 12 years 5 months to 13 years 2 months, with an average age of 12, and interviews of between 40 and 45 minutes were conducted in respective schools during term

two. Using textbooks as a reference, students were questioned on the aspects of subjects they found difficult, as well as their own coping strategies and the support strategies provided by teachers.

Interviews were also sought from all first year subject teachers and support teachers who taught or worked with the student sample. A total of 21 subject teachers (seven in each school) and seven support staff agreed to participate in semi-structured interviews. Participants were interviewed once, for between 40 and 45 minutes, in their respective schools during the second or third school term. This sample included Learning Support/Resource teachers or staff members in support roles through the JCSP, and all except one support teacher combined this role with that of subject teacher (see Table 1). Interviews probed teachers' conceptualisations of literacy and the extent to which literacy had been addressed at initial teacher education or in-service level. Also probed was teachers' awareness of literacy difficulties among students in their classes, how literacy assessment information was gathered and used and who had responsibility for developing students' literacy. In addition, teachers were asked about the specific discourses associated with their subjects and the aspects which might create challenges for students with literacy difficulties. In-class strategies employed both by subject and support teachers, as well as factors which might act as barriers to the inclusion of students with literacy difficulties were investigated also.

Qualitative data from interviews, the prime research method, were supplemented with quantitative data from 12 hours of audiovisual recording and structured observation of instructional units or topics in the subjects of History, Geography and Science in one of the three schools. These subjects were purposely selected because of the significant literacy demands they make on students and the permanence of audiovisual recordings allowed for data to be analysed at a fine-grained level. Classes were recorded over a four week period

during the second school term and all three teachers each viewed selected audiovisual recordings of their classes with the researcher in term three and elaborated on classroom activities.

It was initially intended to capture observational data in all schools in the first two terms of the school year. However, the process of obtaining consent from students and guardians became prolonged and delayed considerably the possibility of gathering data until the second term. The restricted number of observation hours is consequently acknowledged as a limitation in this research.

Analysis of interview data was informed by the principles of Grounded Theory (Strauss and Corbin 1990, 1998), using an inductive approach founded on concepts and themes derived from the data. Separate analysis of each interview transcript was followed by a comparative, cross-case analysis, to look for common patterns and differences within and across settings and participants (Miles and Huberman 1994). Based on a literature review of content and disciplinary literacy strategies, a structured observation schedule and coding system was developed to analyse audiovisual data and to capture the disciplinary literacy activities /talk conducted by teachers with classes as a whole; with participating students; and the talk/activities which were engaged in by individual students, including participating students. During piloting of the schedule in January 2010, it was observed, however, that teacher-led, oral presentation and review of subject content dominated classroom interactions. Following Ness (2009), two code types were subsequently created, with one referring specifically to disciplinary literacy activities, and the other to non-disciplinary literacy activities such as teacher-centred transmission and review of subject content. Continuous coding of audiovisual data allowed the duration of each coded category to be determined in seconds and then calculated as a percentage of total class time. The total amount of time spent on each activity was consequently calculated as a percentage of each subject. By

combining the total amount of time spent on all subjects, each coded activity was calculated as a percentage of the total amount of time spent on all subjects.

Findings

A consistent theme to emerge from findings is that subject teachers lack the professional knowledge to support students with literacy difficulties. Shortcomings at initial teacher education level are identified, which in turn have an influence on teachers' conceptualisations of literacy and their awareness of strategies to support students with difficulties.

Conceptualisations of literacy

When asked to define literacy, all subject teachers focused on the ability to read, with the majority confining this to the reading of words only. Writing was included by just over half of those interviewed and eight teachers only included the ability to comprehend what was read. No reference was made to the digital literacy associated with information and communication technology, although all students confirmed that they regularly accessed computers and the internet outside of school. When asked if they made use of technology in their teaching, a recurring theme to emerge was that of teacher-control, or rather lack of control, referring to the difficulties teachers faced in managing its use in classrooms or in accessing alternative locations such as 'the computer room'.

Literacy was overwhelmingly viewed as a neutral and transportable basic skill that could be applied to all subject contexts rather than constructed in specific social practices for particular purposes. It had no visibility as a medium for teaching, learning and demonstrating knowledge, and was viewed primarily in deficit terms. For example, the majority of teachers regarded literacy as being synonymous with special educational needs, which in turn 'would just define those who are not part of the mainstream' (History Teacher), or of 'normal

schooling' (Home Economics Teacher), and consequently the responsibility of specialist teachers. Although teachers also accepted some responsibility for supporting students with subject literacy, there was an accompanying acknowledgement that 'unfortunately it doesn't seem to work like that' (Business Teacher):

I would tend to see that's not my problem, that's the special needs problem...because my job is not to correct somebody who thinks CAT is KAT. I have to move on and if it means leaving this student behind I feel sorry for him or for her but that's somebody else's baby (English Teacher).

This view was corroborated by Learning Support/Resource teachers in all three schools who stated that literacy was perceived to be their responsibility:

students with learning support, with special needs would be seen as our problem down here, not so much as their problem in the class (Support Teacher).

Traditional approaches in this country which view literacy difficulties in the context of individualised and specialist provision undoubtedly influence such perceptions. It is significant in this research study also that teachers likewise conceptualised in-class support for literacy in similar terms 'where one person can sit down one-to-one and help' (English and Religion Teacher) or 'go around to those that I know would have difficulties and talk to them individually' (History Teacher). There was little sensitivity to the fact that the collaborative and cooperative pedagogical approaches associated with disciplinary literacy are good practice for all students and not just those with literacy difficulties.

Narrow range of support strategies

When asked what literacy support strategies they employed, three strategies were highlighted by teachers, and include the oral presentation and explanation of subject content; attention to key vocabulary; and the use of repetition.

Pedagogy of Telling

Oral presentation and explanation of subject content emerged as the most popular means of supporting students with literacy difficulties. There was consensus that teachers ‘don’t focus on what’s written in the book per se’ (Technical Graphics Teacher), preferring to ‘bypass the text’ (Business Studies and Maths Teachers):

Obviously sometimes you have to read bits. But no I prefer to take whatever is coming up next and talk through it in class (Geography & English Teacher).

Classroom observation similarly confirmed prevalent use of *the pedagogy of telling*, with almost 50% of total recorded class time spent by teachers in the subjects of History, Geography and Science, on the oral presentation (22%) or oral review (27%) of subject information with all students, while using literal questions to assess understanding. Students themselves regarded this strategy as an effective and supportive means of accessing subject content, finding it ‘easier when the teacher is explaining it, more than the books...and we are not just reading it’ (Participating Student). Nevertheless, subject textbooks were a compulsory requirement for students in all classes, and were described by teachers as an ‘essential...tool’ (History Teacher), a ‘guide’ (Technical Graphics and Materials Technology Teacher) and a ‘syllabus’ (Business Studies Teacher). Despite this, the reading of textbooks or supplementary text by teachers in observed classes was rare and accounted for less than 2% of total class time. Occasions when students read aloud or engaged in silent reading accounted for 1% of total class time while the proportion of time spent reading by participating students was minimal.

Teachers, however, stated that they ‘take it for granted that the students can read a passage of information and get answers from it’ (Science Teacher). This again was evident in classroom observations where homework, dependent on students’ ability to read significant

amounts of text, was regularly assigned by teachers. Students' reactions ranged from helplessness, to refusal, to seeking help from a parent or teacher:

I'd ask my mum, my dad. But like if they are not there I just try my hardest and if I'm not able I'm not able and I tell the teacher when I go in to class (Participating Student).

Subject vocabulary

The specialist language associated with subjects was considered by the majority of teachers as an area likely to cause difficulties for students, and this was confirmed by all students in interviews. Subject vocabulary development is acknowledged as having a strong influence on comprehension (Alvermann, Phelps, and Ridgeway 2007; Wray and Lewis 2000), allowing teachers to help students 'become insiders' by teaching them the specialised vocabulary and idioms of the subject disciplines (Readence, Bean, and Baldwin 1998, 117). In interviews, however, less than half of all subject teachers claimed to use it as a strategy. Classroom observation likewise revealed that less than 2% of total class time was spent on key vocabulary by teachers, who primarily utilised it as a strategy to support the oral presentation of subject content rather than subject literacy. Little attention, for example, was drawn to word structure or spelling and there was no onus on passive students to use or engage in activities which might give them ownership of key vocabulary.

Notably, in the one case-study school implementing the Junior Certificate Schools Programme (JCSP), attention to key vocabulary was used as a strategy by just three of the seven teachers interviewed despite suggestions that teachers had a 'huge awareness' of 'keyword lists' and 'keyword notebooks' to 'teach the vocabulary' needed by students (Learning Support/Resource Teacher). A conclusion to be drawn here, and similar to findings in the national evaluation of the JCSP (Department of Education and Science 2005a), is that the literacy practices associated with the programme had minimal impact on the pedagogy of

some teachers in this school. It acquires further significance in this context, however, as the JCSP was this school's primary means of supporting students with literacy difficulties.

Repetition

Repetition, by means of repeated oral presentation and reinforcement of subject content by teachers, or through writing exercises which students were expected to 'practice and keep practicing' (Science Teacher), was highlighted by teachers as a strategy also:

You literally would have to photocopy, exam papers...photocopy ten years of the exact same question. Repeat, repeat, repeat, repeat. And get them to do it, do it, do it (Business Studies Teacher).

However, a predominant feature of this and other strategies outlined above is the privileging of subject content over subject literacy. This was evident from classroom observation also which showed less than 6% of total class time spent by teachers on disciplinary literacy activities. In addition to key vocabulary, these included making links with prior knowledge, establishing a purpose for reading, and drawing attention to text structure. This latter activity occurred in one subject only, however, and related specifically to the format required for posters which students had to produce as part of their end-of-year examinations. Otherwise, almost 60% of total recorded classroom time was spent by teachers orally transmitting and reviewing subject information, and on non-instructional activities such as classroom management.

Initial Teacher Education

Teaching experience accumulated by individual teachers in the three case study schools ranged from 1 to 30 years, with all teachers, including those recently qualified, reporting that literacy had not been 'covered' (SPHE Teacher) or addressed as an element of their initial teacher education (ITE). The majority held a one year postgraduate Diploma in Education,

although three teachers who had completed a four year B.Ed. programme similarly stated that little or no attention was given to literacy or literacy support strategies.

When asked about subject-specific styles of reading, writing, talking and text structure, teachers similarly showed limited awareness of the discourses particular to their own subjects:

How different it is from other subjects I'm not so sure (Home Economics).

Although a minority did concede in interviews that there could well be 'a particular genre...a particular vocabulary' (History and Religion Teacher) specific to different subjects, there was no evidence from interviews or classroom observations, that teachers drew explicit attention to text form or apprenticed learners in the subject discourses that play an important part in the construction of subject knowledge. In relation to writing, for example, almost 25% of total recorded class time was spent by students transcribing teachers' notes or producing written answers to literal textbook questions without teacher modelling or support. The expectation was rather, that students would absorb or 'pick up' the required style 'in the parlance of the classroom' and that 'it wouldn't be something you would focus on' (Technical Drawing Teacher).

It has been suggested earlier that secondary teachers, as subject experts themselves, may not be consciously aware of the mental processes by which they make sense of texts in their disciplines and this view was echoed by the Special Educational Needs Coordinator in one school:

teachers...have been successfully educated...have an assumption you know that everybody loves this and understands it and gets it, whereas students don't .

Furthermore, a correlation can be inferred from this study between the lack of attention to literacy at initial teacher education level and the narrow conceptualisations of literacy, outlined above, which were expressed by teachers in interviews.

Barriers to support

Teachers identified significant barriers at a wider system level which they believed prevented them making an inclusive response to students with literacy difficulties.

The examination and points system

The consensus among subject teachers in all three case study schools was that teaching was ‘all about results’ (Science Teacher) and examinations:

It’s all about points. It’s all about getting As, the best...it’s about how we can best ready our students for the exam so that they can get whatever, get an A (Special Needs Co-ordinator).

This was reflected in the belief that non-examination subjects were ‘less important’ (Science Teacher), and allowed teachers the freedom to teach in a ‘non-traditional way’ (SPHE Teacher). Teachers also strongly expressed the view that examination results were ‘the yardstick’ by which they were all measured (Technical Graphics & Materials Technology (Wood) Teacher). Expectations of parents and students served to reinforce this belief with the result that teachers were under pressure to make sure that students ‘get their exams at the end of the day’ (Geography Teacher) or risk ‘putting yourself out there for maybe a stampede of parents’ (English & History Teacher).

Pedagogy

The expectations and strong influence exerted by the examination system resulted in content-focused teaching for ‘recall’ (Home Economics Teacher) as a dominant feature of teacher pedagogy:

Which are you going to teach, your subject area or the literacy? I feel that your opportunity or ability to...make a good job of both it’s impossible you know. So you have to decide. Yes you’ll try with the literacy, you’ll try a bit, but it’s not an issue that you can take up every day. It would be mostly the content (Home Economics Teacher).

...you won't meet a nicer staff. You know their hearts are all in the right place but I'd say they genuinely believe that they have to teach the subject rather than the kids. It's the subject they are teaching (Learning Support/ Resource Teacher).

One History Teacher described his own teaching approach in terms of a pedagogical choice between teaching and learning:

I'm working from a Junior Cert paper point of view whereas [names Resource/Learning Support Teacher] is coming from the other end. She wants the kids to be integrated and to learn...I have to prioritise the content.

The result was that teachers 'hit a spot in the middle' (History Teacher) and taught 'the class as a whole' (Home Economics Teacher).

Classroom observation similarly showed that teachers primarily engaged in whole-class teaching, with no evidence that classroom activities were differentiated for students with literacy difficulties. For example, interaction between teachers and participating students accounted for less than 1% of total recorded time and was confined to literal questions testing recall of subject content. The passive nature of all students in the classroom was exemplified also by the fact that less than 5% of total recorded time was spent by students working collaboratively. This, however, occurred in one double Science class while students conducted an experiment, and was not a feature of other classes. Alternative approaches such as collaborative learning were not considered the norm or 'the regular way' (English Teacher) and were not utilised. One subject teacher only reported using 'group-work' (SPHE Teacher), and significantly this was in a non-examination subject. In contrast, students themselves highlighted the benefits of collaborative work, stating that 'if one of us didn't know the answer' someone else in the group would 'know how to do it' (Participating Student).

Time constraints and breadth of curriculum

The examination and points system exerted additional pressure on teachers and students to complete, within time constraints, broad curricula which could range, in the words of one History teacher, ‘from Plato to NATO’. Time constraints applied both to the duration of each class period and the number of periods assigned weekly to individual subjects:

I mean you have forty minutes. Five is gone trying to get them in, you could be another ten and that correcting someone else...You have very little time (Science Teacher).

Subject teachers felt obliged therefore ‘to keep moving’ (Home Economics Teacher) and ‘to keep cracking on’ (Science Teacher). The result was that:

the student with special needs or literacy problems will fall between the cracks in a mainstream class (English Teacher).

Mixed ability

Combined with the pressures outlined above, there was consensus among teachers also that mixed ability classes, in particular, created significant barriers to support for students with literacy difficulties. It was stated that having students who ‘are practically illiterate’ alongside students ‘trying to get A1s and A2s’ was ‘nearly impossible’ (Home Economics Teacher) whereas ‘if you had them all the same it’s fine’ (Mathematics Teacher). Attempting to cater for students with literacy difficulties led to boredom for ‘extremely bright students’ (Geography Teacher) and subsequent ‘discipline problems’ (History and English Teacher).

The use of assessment information

Evidence from this research study indicates also that assessment data did not inform the planning or pedagogy of subject teachers’ at classroom level. It was used primarily for administrative purposes in all three schools in order to assign students to particular classes, to the JCSP programme, or to smaller groups for further support. Similarly, assessment

information provided by primary schools was used to facilitate or maintain provision at second level for students with special educational needs. For each case-study school this information consisted primarily of psychological or written reports on the special educational needs of students.

In-school assessment for literacy varied between schools, with two schools using short assessments of reading ability from which reading ages can be estimated. Assessment instruments such as these, however, are primarily intended to screen and identify students having difficulties rather than provide specific detail on an individual's literacy strengths and weaknesses. Without further assessment, the lack of detail generated can be of little use to subject teachers. Aptitude tests were the only additional assessments used in both schools to gather supplementary detail, while it is significant that the third case study school relied exclusively on aptitude testing to determine if students needed support with literacy. In addition, a feature of assessment common to all three schools was that it occurred once only at the beginning of the students' first year and not continuously throughout or at the end of the year to gauge progress.

Regardless of detail, however, significant issues emerged in all schools regarding both the use that was made of assessment information and its dissemination to subject teachers. Two schools relied on a single staff meeting at the beginning of the year to make teachers aware of incoming first year students experiencing difficulties with literacy, while the Year Head for first year students in the third school was responsible for informing class teachers. Both methods however, were considered unsatisfactory by teachers. Reliance on a singular staff meeting was acknowledged by teachers as an inadequate method of disseminating information on students' literacy needs, and was compounded by the inclusion of detail regarding the health issues and special educational needs of other students. Teachers were unanimous in stating that their level of insight into students' literacy difficulties was therefore

poor, and in all three schools reported that the onus was on them to proactively seek further information on students' literacy strengths or weaknesses:

I can understand that in some cases it's a need to know basis but if I am the teacher in the class I need to know (SPHE Teacher).

Discussion

In Ireland, the National Strategy on literacy now aims to develop the important role that teachers of all post-primary subjects have in enhancing students' literacy abilities. Based on findings in this research study, however, a key initial challenge at second level will be to reclaim literacy from its prevalent association with difficulties and Special Educational Needs. Although the main focus of this investigation was on attitudes and practices in relation to support for students with literacy difficulties, the deficit view and narrow conceptualisations of literacy held by teachers indicate that much will need to be done to establish literacy as a central element in the teaching and learning of all students in all disciplines. It is notable, for example, that teachers made no reference in their definitions to 'digital literacy', which is now included in the definition of literacy offered by the National Strategy (Department of Education and Skills 2011, 8). Although Carrington (2004) maintains that the literacy practices associated with new technology have taken the school system by surprise, this may also be an indication of how established pedagogical practices in schools are resistant to change. According to Lankshear and Knobel (2006, 55), when engagement with digital media does occur in schools, it is often a matter of reproducing old literacy practices with new technology 'tacked on here and there without changing the substance of the practice'.

Consequently, teachers need support in broadening their understanding of literacy and in consciously unpacking, as subject experts, the discourse practices and ways of viewing and

communicating about the world that are characteristic of their academic disciplines (Heller and Greenleaf 2007; Moje 2007; Shanahan and Shanahan 2008, 2012). There are clear implications here for ITE providers, and for those charged with implementing policy or providing professional development. Initial teacher education programmes, for example, will need to address literacy as a central element of subject pedagogy in all disciplines and not solely as a discrete or additional element of programmes overall. Similarly, continuous professional development (CPD) will be required to help teachers integrate literacy instruction into their disciplines. This should include subject specific vocabulary instruction, as well as direct and explicit instruction of the specific text structures, stylistic conventions, modes of analysis and debate that are unique to particular subjects and disciplines (Perkins et al. 2011). Professional development providers must also consider how teachers construct and conceptualise their identities as subject educators. Professional identity is shaped both by teachers' individual characteristics and by the context in which they work (Beauchamp & Thomas 2009). Efforts to introduce literacy practices which endeavour to change established pedagogy must, therefore, first attend to broader cultural aspects common to the secondary school system. Here learning is divided into separate areas taught by specialists, and subject subcultures as a significant element in wider school culture, shape teacher-identity and influence understandings of teaching and learning (Hall 2005; Heller and Greenleaf 2007; O'Brien, Moje, and Stewart 2001). Young teachers, in particular may, as a result, be more interested in replicating what experienced teachers in their relevant disciplines 'usually do rather than appropriating routines from reading instruction' (Shanahan and Shanahan 2012, 14).

In the Irish context, student performance in national assessments is also a significant influence on the construction of teachers' identities and on consequent practice in the classroom. A notable finding in this study is the extent to which the examination and points

system impacts on teachers' pedagogy and, in particular, constrains their ability to include all students in mixed-ability settings. Kinsella (2009) similarly identifies mixed-ability teaching and learning, exacerbated by the assessment-led demands of broad curriculum content, as the single most contentious issue to emerge in his study on the inclusion of students with special educational needs in second level schools. Change is imminent, however, with an impending reduction in curriculum breadth and move away from terminal high stakes examinations outlined in *A Framework for Junior Cycle* (Department of Education and Skills 2012). Whether this will facilitate a pedagogical shift from prevalent teacher-centred approaches, focusing on content coverage is yet to be seen. O'Brien, Stewart, and Moje (1995) maintain that the primary goal of the secondary curriculum is the construction of an efficient framework to transmit formalised, value-free knowledge, towards predictable outcomes measured in tests. This has traditionally implied a focus on the knowledge in school textbooks, used by teachers as a means structuring and assessing content, despite the fact that continuous reading of texts in secondary classrooms is rare (Alvermann and Moore 1991). Change at junior cycle without significant similar change at senior cycle will ensure, however, that the long shadow cast by the Leaving Certificate examination on the pedagogical practices of teachers at second level is maintained.

The use of assessment information to inform teaching at second level is now prioritised in the National Strategy also and is to be enabled through the administration of standardised tests of reading, as well as the requirement that all schools 'engage in robust self-evaluation and put in place a three-year school improvement plan which includes specific targets for the promotion and improvement of literacy' (Department of Education and Skills 2011, 82). Again, evidence from this research study reinforces findings elsewhere that assessment, administered by specialist teachers and largely confined to the point of entry to schools, is not being used to inform planning or teaching (Department of Education and

Science 2005b; Shiel, Kellaghan and Moran, 2010). Smyth, McCoy, and Darmody (2004) similarly find variability in both the flow of assessment information from the primary to the secondary system and the accessibility of such information to subject teachers. The development of standardised tests of reading ‘for students at the end of second year in post-primary school’ (Department of Education and Skills 2011, 81) is to be welcomed, therefore, as it will at least address issues concerning the use of inappropriate assessment instruments for literacy evident in this study. To be effective, however, assessment information must be both accessible and comprehensible to teachers. Imposing assessment requirements on schools is one matter, but teachers must also be supported in making sense of, as well as utilising effectively, the information gathered. Data that is used primarily for administrative purposes or to construct a statistical profile for schools as part of a self-evaluation process will have limited impact on teaching and learning.

Conclusion

Change has become part of the educational landscape at second level in Ireland in recent years. The policy focus on literacy is further exemplification of this change, with ambitious targets and actions outlined to ‘improve the teaching and learning of literacy’ (Department of Education and Skills 2011, 5). In so doing it offers a real opportunity to focus on the medium through which teaching and learning is realised and to fundamentally alter pedagogical approaches at classroom level.

This study contributes to the wider literature on disciplinary literacy by identifying deeply embedded challenges, emanating both from teachers’ professional identities as subject specialists and from cultural issues at school and wider system level, which must be overcome in practice. It adds also to the limited research conducted in this country on literacy in secondary schools and shows that the National Strategy must build from a low base in

order to reclaim literacy from its traditional association with difficulties and deficits, if it is to be reconceptualised as a central element of teaching and learning in all subjects at second level. Specifically, it provides insight into the attitudes and practices of subject teachers with regard to disciplinary literacy and highlights the predominance of teacher-centred and content-focused pedagogical approaches that rely on the oral transmission of content knowledge to passive students, with textbooks cast mainly in a supportive role. While *the pedagogy of telling* may permit coverage of large amounts of subject content in a timely manner (O'Brien, Moje, and Stewart 2001), by-passing text does not empower students with strategies that they themselves might use when reading, writing or discussing texts. This study shows also that while teachers accept some responsibility for developing the literacy of their students, traditional models of specialist literacy support and use of assessment information serve to lessen that sense of responsibility.

The implications are clear for initial teacher education providers and for those involved in continuous professional development. The narrow range of support strategies outlined in this study reflects teachers' lack of professional knowledge and resonates also with the view that few secondary teachers, even of English, have received any substantial training in literacy work and need help (Lewis and Wray 2000). Teachers, therefore, must be supported in developing their understanding of literacy and in making visible the literacy discourses of their specific disciplines.

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Table 1 Subjects taught by participating teachers

Subjects taught by participating teachers	No. of teachers
Art	1
Business Studies	2
Civic Social and Political Education	5
English	9
French	2
Gaeilge	2
Geography	3
German	1
History	3
Home Economics	3
Material Technology (Wood)	1
Mathematics	5
Metalwork	1
Physical Education	2
Religious Education	4
Science	3
Social Personal and Health Education	4
Technical Graphics	2