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CONTENTS

A Note from the Editor	6
Learning as participation: responding to the challenge of the new Primary Language Curriculum – <i>David Little and Déirdre Kirwan</i>	7
Supporting students with dyslexia in the context of the Primary Language Curriculum – <i>Lauren Scanlon and Patrick Burke</i>	22
Cracking the Code: Early-Reading Indicators, Text Characteristics and The Lexile Framework for Reading in Primary and Post-Primary Schools in Ireland – <i>Edmond Scannell</i>	36
Using Visual Schedules to Support Children with Autism Spectrum Disorder – <i>Amy Curtin and Stella Long</i>	61
An Exploration of the Facilitators and Barriers to the Use of Therapeutic Intervention in Irish School Psychology Services – <i>Orla Murphy and Fionnuala Tynan</i>	78
The Collaborative and Proactive Solutions (CPS) Model as an Effective Intervention for Youth who Present with Behaviour that Challenges: A Review – <i>Edel Higgins</i>	98
List of External Reviewers	117
Guidelines for submitting an article to LEARN journal	119

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A Note from the Editor

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Pauline M Cogan PhD
Editor

Learning as participation: responding to the challenge of the new Primary Language Curriculum

David Little and Déirdre Kirwan

Abstract

The new Primary Language Curriculum (2019) was introduced in order to promote an integrated approach to the teaching of English and Irish in English-medium schools and Irish and English in Irish-medium schools. In this article we argue that this goal is most likely to be achieved by adopting a participationist approach to teaching and learning. We begin the article by briefly considering the principal reasons for introducing the new PLC: the momentous changes that have taken place in Irish society over the past two decades and enduring worries about the teaching and learning of Irish. We then illustrate the new linguistic reality the PLC is aiming at by describing the approach to language education policy and practice developed by Scoil Bhríde (Cailíní), Blanchardstown. Turning to the PLC itself, we wonder whether its analytic approach to the definition of curriculum content and learning outcomes may be counterproductive. With particular reference to Irish in English-medium schools, we then outline the participationist approach to learning and teaching that we believe the PLC requires and conclude by briefly describing a holistic approach to syllabus design that corresponds to this approach.

Introduction: Why a new Primary Language Curriculum?

The new Primary Language Curriculum (PLC) marks an important development in official thinking about language education at primary level. The PLC, we are told, ‘integrates English and Irish and includes all children and the language knowledge and experiences that they bring to the classroom’ (Department of Education and Skills 2019: 4). Although it doesn’t say so, the PLC evidently shares the central aim of the Council of Europe’s so-called plurilingual approach: to develop in pupils ‘a communicative competence to which all knowledge and experience of language contributes and in which languages interrelate and interact’ (Council of Europe 2001: 4).

The PLC presents itself (Department of Education and Skills 2019: 4) as a response to changes that have occurred in Irish society in the twenty years since the introduction of the Primary School Curriculum that it replaces (Government of Ireland 1999). These changes are largely the result of inward migration, which has transformed the linguistic and cultural fabric of Irish society – the PLC notes that more than 200 languages are now spoken in Ireland (Department of Education and Skills 2019: 4). Since the later 1990s,

Irish schools have faced the challenge of including pupils and students whose home language (HL) is neither English nor Irish. If pupils and students from immigrant families are to realize their educational potential, they must develop near-native proficiency in English as the dominant medium of teaching and learning. At the same time, in the interests of social cohesion both now and in the future, their inclusion must be social and cultural as well as linguistic. School should be a place where pupils and students learn to accept, respect and benefit from linguistic and cultural diversity.

The PLC's integrated approach to language education was also motivated by challenges associated with the learning of Irish at primary level (Department of Education and Skills 2019: 4). The Chief Inspector's report for the period from January 2013 to July 2016 paints a worrying picture:

Our findings with regard to Irish are significantly less positive than those for English or Mathematics. In fact, a deterioration in outcomes for children in Irish is noted since the last Chief Inspector's Report in 2013 ... A significant cohort of children are not making appropriate progress in Irish. (Department of Education and Skills 2018: 51)

We are not told what criteria shaped this judgement, but we are told that 'pupils had significantly fewer opportunities to learn through talk and discussion in Irish lessons observed (77%) than they did in English and Mathematics' (Department of Education and Skills 2018: 52). In general,

Irish is the subject most likely to receive a recommendation for improvement in whole-school evaluation reports. Inspectors advise teachers to ensure that lesson content is appropriately differentiated to reflect the varying learning needs and abilities of pupils. They also point to a need to strengthen pupils' communications skills in Irish through the provision of increased opportunities in the classroom to use the language they have been taught. (ibid.)

The report concludes that 'Significant change is required in terms of the learning experiences provided to pupils if improvement in outcomes in Irish is to be achieved' (ibid.: 60). The PLC is the instrument by which the Department of Education hopes to effect this change.

Forging a new linguistic reality: the experience of Scoil Bhríde (Cailíní), Blanchardstown

The case of Scoil Bhríde (Cailíní), Blanchardstown, of which Déirdre Kirwan was principal from 1987 to 2015, provides an example of the new linguistic reality that the PLC aims to bring about. Scoil Bhríde is an English-medium school that has neither disadvantaged status nor access to special resources. Its achievements in language education are referenced both in the national strategy document *Languages Connect* (Department of Education and Skills 2017: 30)

and in the Primary Language Curriculum support materials (Department of Education and Skills, no date: 107), and it has been identified as an example of good practice in two reports issued by the European Commission (European Commission 2020a: 24–25, 2020b: 14–15). By 2015, 80 per cent of the the school’s pupils came from immigrant families and spoke a language other than English at home (there were no Irish-speaking pupils in the school). The majority of these pupils who were learning English as an additional language (EAL) had little or no English when they started school in Junior Infants, and between them they had more than 50 HLs.

According to the 1999 Primary School Curriculum, ‘the child is an active agent of his or her learning’ and ‘the child’s existing knowledge and experience form the basis for learning’ (Government of Ireland 1999: 8). The principal and her colleagues reasoned that this child-centred ethos obliged them to find a role for HLs in the educational process. After all, the language a pupil speaks at home is the default medium of her consciousness and discursive thinking; besides being her chief cognitive tool, it is central to her identity and sense of self, the soil in which the other languages she learns will grow. If teaching was to start from pupils’ existing knowledge and experience and engage their agency, it had to find a way of including HLs in their education. That consideration led Scoil Bhríde to encourage pupils to use their HLs in the classroom for whatever purposes seemed appropriate to them. The school already had a well-established tradition of not confining Irish to the daily Irish lesson: teachers made some use of the language in other lessons and often communicated with one another and with pupils in Irish outside the classroom. In other words, the inclusion of HLs in classroom communication entailed an expansion not from monolingualism but from limited bilingualism to multilingualism.

The decision to encourage the use of HLs in the classroom had two important consequences. First, teachers were no longer the sole arbiters of knowledge because when it came to HLs and associated cultural practices, the pupils were the experts. Secondly, by inviting the use of HLs teachers were surrendering to pupils a share of initiative in classroom discourse. The exploratory talk that framed each lesson thus became dialogic in the fullest sense of the word, and teachers had to be prepared to implement their lesson plans flexibly, allowing pupils’ contributions to take classroom talk in unexpected directions.

When HLs are unknown to the teacher and at least some of the pupils, there are essentially three ways in which they can be included in classroom communication: as the medium of pair and group work when pupils speak the same or closely related HLs; for purposes of display (‘this is what we say in my language’); and as a source of linguistic intuition, making lexical, syntactic and other formal comparisons between languages. The first two of these functions allow pupils to use their HL as a cognitive tool to support their learning; the third stimulates a rich engagement with language as the medium of all learning and promotes the development of high levels of language awareness in all pupils.

In Junior Infants, Irish and HLs are used in parallel with English in the learning of basic skills and concepts – for example, pupils learn to count from one to five in English and Irish, after which pupils from immigrant families show the class how to count in their HL; inevitably pupils learn fragments of one another's languages. The same procedure is adopted when performing simple calculations or matching shapes and colours. In this way pupils quickly grow used to being members of an explicitly multilingual community. Because all pupils are beginners in the language, Irish provides them with an equal challenge; at the same time, English-speaking pupils quickly recognize that by learning Irish they too will be able to communicate in more than one language. EAL pupils are immersed in English from the beginning and soon learn the language used to manage basic routines. They also have small-group 'language support' lessons in which the focus is on the language currently relevant to the activities of the mainstream classroom. These lessons include English-speaking pupils because native speakers also benefit from a focus on language as such and their presence provides communicative support for their EAL classmates. In the early stages of primary school, pupils with Special Educational Needs (SEN) who are native speakers of English may have higher levels of proficiency in English than their EAL classmates. Including them in language support lessons gives them an opportunity to take a leading role in communication, which helps to boost their confidence. The importance of language support should not be underestimated. These small-group language sessions are invaluable in that they provide a forum for the existing language repertoires of both EAL and SEN pupils that can be used to develop literacy skills.

In Irish lessons the emphasis is on language learning through language use, which is scaffolded by using routines that pupils are already familiar with in English. For example, a nature walk can be used to teach pupils the names of trees and flowers in English, and pupils can compete with one another to find examples of a particular species. A few days later the same walk can be repeated in Irish, which helps to reinforce the pupils' original learning while using it to expand their Irish language skills. The newly acquired language can then be recapitulated in the classroom. There are, of course, a multitude of other ways in which routines first carried out in English can be used to scaffold the use of Irish. Some of them – for example, familiar stories – support the learning of the written as well as the spoken language. Already in Junior Infants, pupils are surrounded by environmental print, especially captions on pictures and simple notices, in Irish as well as English. And when they begin to write simple texts in English ('My name is Máire, I have two brothers and a sister'), they are taught to write the same in Irish. Pupils from immigrant families get their parents or an older brother or sister to help them produce a version of the text in their HL. From this simple beginning, pupils produce increasingly sophisticated parallel texts in English, Irish and their HLs. Of course, they find it more difficult to write a story in Irish than in English or their HL, so the production of parallel texts often starts with Irish: the class collaborates in constructing a story that the teacher writes on the whiteboard and pupils copy into their copybooks. They

then produce a version of the text in English for homework, and EAL pupils also produce a version in their HL. Some EAL pupils attend weekend classes that help them to develop literacy in their HL; others depend entirely on the help they receive from their family. But in all cases the levels of proficiency achieved in the production of texts in Irish and HLs shows that in favourable circumstances, skills acquired in one language can be transferred to one or more other languages (Cummins 1979).

By affirming and valuing linguistic diversity, Scoil Bhríde makes languages interesting and desirable. When an EAL pupil uses her HL to explain something, her body language tends to express a more confident, passionate sense of who she is. This communicates itself to English-speaking pupils, who sense the energy emanating from their classmate and would like to exude the same vitality. It is important to note that interest and engagement in language learning is not confined to high-achieving pupils. Scoil Bhríde's approach enables all pupils to achieve high levels of age-appropriate literacy in English, Irish, French (introduced in Fifth Class) and (in the case of EAL pupils) HLs. It also generates unusual levels of language awareness and stimulates pupils of all ability levels to undertake ambitious language-related projects on their own initiative. In other words, by adopting an integrated approach to English, Irish and HLs, the school provides a greatly enhanced educational experience for all pupils (for a detailed case study, see Little & Kirwan 2019). We conclude our description of Scoil Bhríde's approach with two examples. Figure 1 shows uncorrected parallel texts in Irish, English and Tagalog written by a Third Class pupil; she wrote the Irish and English texts unaided but her parents helped her with the Tagalog text. Figure 2 shows an Irish text written by an EAL pupil at the beginning of Fourth Class; it reflects the kind of spoken interaction that is part of daily life in the classroom.

Bhí mé sa bhaile. Tá Mamaí agus Daidí sa seomra súí. Tá Daidí ar an ríomhaire agus bhí Mamaí ag scríobh ar an leabhar. Tá mo deartháir ina chodhladh sa seomra codlata. Bhí mé sa ghéirdín agus bhí mé ag luascadh ar an luascán. Agus ansin faoin duilleoga tá an grainneog! 'gráinneog!' dúirt mé. Tá mé agus an gráinneog ag súgradh ar an luascán arís sa ghéirdín.

I was at home. Mammy and Daddy are in the living room. Daddy is on the computer and Mammy is writing on the book. My brother is sleeping in his bedroom. I was in the garden and I was swinging on the swings. And then under the leaves there was a hedgehog! 'Hedgehog!' I said. Me and the hedgehog were playing on the swing in the garden again.

Ako ay nasa bahay. Si Mama at si Papa nasa silid tanggapan. Gumagamit ng kumpyuter si Papa at sumusulat sa Mama sa libro. Ang kuya ko ay natutulog sa kanyang kwarto. Ako ay nasa hardin at naglalaro sa pag-indayog. At pagkatapos ang nasa ilalim ng dahoon ay parkupino! 'parkupino!' sabi ko. Ako at ang parkupino ay naglaro sa pag-indayog sa hardin ulit.

Figure 1: Parallel texts in Irish, English and Tagalog written by a Third Class pupil

Conas Atá Tú?

Tá mé go hiontach go raibh maith agat.
 Chuaigh mé go dtí siopa na mbuataisí ar an Luan. Cheannaigh mé buataisí dubha agus bhí siad go deas.
 Tar éis tamaill, chuaigh me go Penney's. Cheannaigh me sparán, bábbóg, muince agus gúna bándearg.
 Tar éis tamaill, shiúil mé agus Mamaí go Burger King. D'ith mé borgaire agus sceallóga. D'ól me cóc freisin. Bhí an-spórt againn.
 Ach! Ar an Déardaoin, bhí mé tinn!
 Shuigh mé ar an gcathaoir. Scríobh mé scéal. Shiúil mé ar mo mhála. Ní fhaca mé an peann. Thit mé ar an úrlár. Bhí mo shrón ag cur fola.
 'A Mhamaí!
 Rith Mamaí isteach sa seomra súí.
 Ghlaigh sí ar an dochtúir. Tháinig an dochtúir go dtí an teach.
 'Ó, a Ria! An bhfuil do shrón ag cur fola?'
 'Tá mo shrón ag cur fola agus tá pian i mo shrón freisin. Bhrúigh mé mo shrón.'
 Shiúil an dochtúir go dtí an tolg. Ní fhaca sé an mála. This sé ar an úrlár.
 'Ó! Tá pian i mo chos,' arsa an dochtúir.
 Bhí Mamaí crosta.
 'A Ria! Cuir an mála sin sa seomra codlata anois.'
 'Tá brón orm a Mhamaí.'
 'Déan deifir Ria.'
 Tar éis tamaill, rinne Mamaí tae. Thug Mamaí tae don dochtúir.
 'Go raibh maith agat,' arsa an dochtúir.
 Bhí náire orm.
 Bhí an Déardaoin go huafásach!

Figure 2: Irish text written by an EAL pupil at the beginning of Fourth Class

How are we to explain the success of this approach to language education? Anna Sfard, a professor of mathematics education, distinguishes between acquisitionist and participationist views of learning (Sfard 2015). For the acquisitionist, learning is a matter of acquiring conceptions, schemes and internal representations. This is the majority view of how languages are learnt; it shapes traditional approaches to language teaching and explains their focus on the learning of linguistic forms (words and their grammatical roles). For the participationist, by contrast, learning is a matter of participating in activities. Scoil Bhríde's pupils develop their speaking and writing skills in English, Irish and their HLs by playing an active role in the learning dialogue that their teachers initiate and maintain. When they voluntarily produce extensive written text in multiple languages, they engage in an internalized version of that dialogue: written text is the product of their communication with themselves.

The Primary Language Curriculum: some questions

As we have seen, the overarching goal of the PLC is to foster the development of integrated plurilingual repertoires. Accordingly, the PL articulates a view of language as a complex holistic phenomenon:

Language enables children to engage emotionally, socially, cognitively, imaginatively and aesthetically in relationships and cultural experiences. It empowers children to develop their thinking, expression, reflection, critique and empathy, and it supports the development of self-efficacy, identity and full participation in society. (Department of Education and Skills 2019: 6)

If an integrated approach to the teaching of English and Irish means anything, in English-medium schools these two sentences apply as much to Irish as to English (and the HLs of EAL pupils). It is worth pointing out, however, that the formulation of the two sentences excludes the educational process. Children's linguistic repertoires are the means by which they 'engage emotionally, socially, cognitively, imaginatively and aesthetically'; they are the medium of 'their thinking, expression, reflection, critique and empathy'; and they are essential for 'the development of self-efficacy, identity and full participation in society'. It is not language, however, but education – the work of the individual teacher in the classroom – that 'enables', 'empowers' and 'supports'. And it is the task of the PLC to explain to teachers how they should enable, empower and support in ways that integrate the teaching and learning of English and Irish.

According to the Chief Inspector, 'Significant change is required in terms of the learning experiences provided to pupils if improvement in outcomes in Irish is to be achieved' (Department of Education and Skills 2018: 60). Our own experience convinces us that such change requires the adoption of a participationist approach to learning and teaching. The PLC, however, appears to point in the opposite direction, adopting a strongly analytical approach to the definition of curriculum content and learning outcomes. The curriculum is divided into three strands – oral language, reading and writing; and each strand comprises three elements that 'describe essential language learning': 'developing communicative relationships through language', 'understanding the content and structure of language' and 'exploring and using language' (Department of Education and Skills 2019: 14). The way in which the elements are introduced and discussed may easily encourage pedagogical separation between them and the strands rather than integration between Irish and English. We are told that 'Learning Outcomes help teachers to select what to teach and the best order in which to teach it' (Department of Education and Skills 2018: 18), but how does this support the notion of integrated language learning? The learning outcomes associated with 'understanding the content and structure of language' concern 'sentence structure and grammar, oral vocabulary and reading vocabulary, conventions of print, phonological and phonemic awareness, word recognition, spelling and comprehension' (ibid.: 16). Isn't this likely to reinforce traditional form-focussed teaching rather than encourage the integration of Irish with English?

The apparent contradiction between the PLC's integrationist aim and its analytical approach is compounded by the way in which issues are presented and arguments are developed. Sometimes only part of an argument is offered. For example, we are told:

Central to the successful learning of a second language is exposure to the language. Children learning Irish as an L2, who have less exposure to the language, need opportunities outside of the Irish lesson to hear and listen to the language that they are learning' (ibid.: 10).

Exposure is certainly necessary, but it is not a sufficient condition for successful language learning; rather, it provides a basis for the productive language use – writing as well as speaking – that leads to the growth of proficiency. Why is exposure to Irish not linked to *use* of the language? In Section 2.4 we are told: 'Language is co-constructed between the adult and child through joint attention, mutual interest and enjoyment' (Department of Education and Skills 2018: 8), but what is co-constructed is not language but meaning. In the section headed 'Transfer of skills' we are told: 'Children learn a second language in much the same way as they learn their first language, by interacting with others in order to communicate their needs' (Department of Education and Skills 2018: 43), but the clear pedagogical implications of this claim are nowhere explored. On the same page we read that a focus on similarities and differences between languages 'helps children to learn a second and subsequent language more efficiently', but what it actually does is stimulate an analytic interest in languages and foster language awareness.

The strategy document *Languages Connect* is committed to the development of immigrant languages as a national resource, a process that should begin at primary level: 'The Primary Language Curriculum recognizes that "most schools and classrooms include children whose home language is a language other than English or Irish". Proficiency in their home language contributes to these children's development of proficiency in the language of instruction' (Department of Education and Skills 2017: 30). In fact, however, the PLC says little about EAL pupils and their HLs. It stresses the importance of 'an environment that supports and promotes children's differences' (Department of Education and Skills 2019: 9) – though it might be better to focus on the importance of acknowledging and respecting difference. And it asserts that 'Children for whom English is an additional language (EAL) bring greater awareness and appreciation of languages and cultures to a classroom' (ibid.), which is not invariably the case. We are told that 'parents and the school can play a key role in celebrating and maintaining the child's HL' (ibid.: 42) but not why this is important or how it should be done. And in the section headed 'Linguistic diversity' we read that pupils from immigrant families 'can be encouraged to read and write texts in their HLs and to share these texts with peers' (ibid.: 45), but there is no discussion of the contribution that EAL pupils' HLs can make to the educational process in general.

The decision to encourage an integrated approach to the teaching and learning of English and Irish, though long overdue, is greatly to be welcomed. But primary principals and teachers who recognize the importance of the integrationist argument may feel let down by the PLC.

Learning by participation: integrating the learning of Irish and English

We believe that by adopting a participationist approach to teaching and language learning it is possible to achieve the overarching goal of the PLC without following its potentially counterproductive proposals. To this end, the first thing a school should do is draw up a language policy that is approved by the board of management, shared with parents and subject to regular review. The policy should express commitment to the view that plurilingual proficiency – the ability to use two or more languages with fluency and confidence – is an essential educational goal and that the HLs of EAL pupils are cultural capital that should benefit the learning community as a whole. The policy should also express commitment to the view that proficiency in Irish results from active participation in dialogue that is conducted in Irish and makes space for EAL pupils' HLs. Although its medium is speech, dialogue engages increasingly with written language as pupils progress through the school, so the policy should recognize that in all the languages in a pupil's repertoire, fluency in writing is no less important than fluency in speaking. The effects of the policy should be visible throughout the school and audible in the languages used at formal school events and in informal exchanges between teachers and pupils. Besides fostering increased social cohesion in the wider school community, such a policy can create a positive dynamic when parents are made aware of the opportunities it provides for further language learning and the educational benefits that accrue from this.

Integrating the teaching of English and Irish requires a change of mindset but only relatively minor adjustments to what is considered good pedagogical practice. Bearing in mind the Primary School Curriculum's guiding principles – 'the child is an active agent of his or her learning' and 'the child's existing knowledge and experience form the basis for learning' (Government of Ireland 1999: 8) – all lessons should be framed in exploratory talk that seeks to bring curriculum content into interaction with the knowledge and interests that pupils bring with them. It is on the basis of their knowledge and interests that pupils can participate actively in the learning dialogue, which is the instrument teachers use to enable, empower and support. At the beginning of each lesson the teacher should explain to her pupils what she is aiming at: 'why she has chosen this particular task, how she wants her learners to carry it out, and what results might come from it' (Little, Dam & Legenhausen 2017: 80). From Senior Infants on she should write a summary of her plan on the whiteboard, and as soon as pupils can write, they should copy the plan into their copybooks. According to the PLC, 'Formal literacy skills in the school's L2 (Irish) will be introduced at the latest before the end of second class' (Department of Education and Skills 2019: 21). In our view this is unnecessarily late: there is no

reason why pupils should not start to write Irish as soon as they have mastered the basics of writing in English, and teachers should summarize their lesson plans in Irish as well as English. As pupils progress through the school, they should use their copybooks as logbooks in the manner described by Little, Dam and Legenhausen (2017), writing entries in English, Irish and, in the case of EAL pupils, their HL.

The argument that pupils should learn Irish by using the language may seem absurd to those who are used to teaching words and phrases, verb forms and the rules of syntax. The problem with this approach, however, is that it too rarely translates into the ability to use Irish as a medium of spontaneous communication. The participationist view argues that even when it comes to learning a new language, children are not blank slates. In a multitude of ways, the language they speak at home is the scaffold that supports their learning of Irish and, in the case of EAL pupils, English. So the way to facilitate Junior Infants' participation in interaction in Irish is to teach them routines in English – counting, simple addition, games like 'Hand to hand' and so on – and then to transfer the same routines to Irish. Stories and songs that exist in both languages can serve the same scaffolding function. This approach can shape Irish lessons, especially in the very early stages; it can also be used in lessons that focus on parts of the curriculum that are traditionally thought of as 'not language'.

Irish lessons should focus on developing pupils' oral proficiency, giving them ample opportunities to speak Irish, but they should also focus on literacy development. As Scoil Bhríde's experience shows, the production of parallel texts in Irish and English helps to develop pupils' ability to construct extended discourse in both languages (see the many examples included in Little & Kirwan 2019). Writing should not be treated as an exclusively individual activity, as the PLC seems to suggest (Department of Education and Skills 2019: 17). In the Irish lesson the teacher can use the whiteboard to manage the collaborative composition of a story that pupils copy into their copybooks as it develops and translate into English for homework. If they continue the story in one or both languages, their various continuations can feed into the further elaboration of the Irish story in their next Irish lesson.

The participationist approach recognizes, of course, that pupils won't get far in Irish without learning words and phrases and becoming familiar with verb forms and syntax. We recommend, however, that pupils learn the words and phrases that they want to learn – the words and phrases that allow them to talk and write about themselves, their family and their interests. From Senior Infants on, they can do this by making word cards – slips of paper with the Irish word on one side and its English equivalent or a picture on the other. These serve a double learning purpose: pupils begin to learn new words by making their word cards, and they learn more words by playing memory games with the word cards produced by their classmates. From word cards, they can progress to picture dominoes – small pieces of card or paper are divided into two halves; on one half

is a picture, drawn by the learner or cut from a magazine, and on the other an Irish phrase or sentence that refers to the picture on another domino. Again, a double learning purpose is served. In due course, from Fourth Class upwards, learners can be encouraged to construct their own board games. (For examples of these and other pupil-controlled activities, see Little, Dam & Legenhausen 2017.) When it comes to the teaching and learning of grammar, a great deal can be achieved simply by focusing on correct orthography. Beyond this, the exploration of grammar should always be based on written language the pupils themselves have produced.

An integrated approach to the teaching of English and Irish should not be confined to the parallel development of speaking and writing skills in the two languages. Irish as well as English should play a role in ‘not language’ areas of the curriculum. In order to achieve this, teachers should include in their lesson plans the Irish words and phrases they intend to introduce and prepare ways of using them. This enriches both teaching across the curriculum and, by washback, lessons that are devoted to Irish. Scoil Bhríde’s experience suggests that the incidental use of Irish in lessons that are predominantly conducted in English is greatly facilitated if EAL pupils are encouraged to make contributions in their HL. When this happens, pupils will almost certainly start to draw comparisons and contrasts between languages.

It is a matter of observation that systems of mutual support arise quasi-spontaneously when school leaders, teachers, pupils and parents adopt a whole-school approach to dealing with challenges. The same is likely to happen when a school commits itself to integrating the teaching and learning of English and Irish, with teachers supporting each other by sharing linguistic and other resources. The pedagogical tradition that is responsible for the failure of so many pupils and students to become fluent users of Irish lays great emphasis on grammatical correctness. This creates a situation in which learners are reluctant to speak for fear of making mistakes, and this fear is sometimes shared by teachers. When that is the case, it is important to bear four things in mind. First, the range of language that one needs for day-to-day classroom management is relatively limited; second, the sure way to improve one’s fluency in any language is to use it on a daily basis; third, we all make mistakes whatever language we are using; and fourth, *any* communicative language use is better than none.

Conclusion

Most approaches to language teaching focus on the acquisition of linguistic features that are judged to form the basis of a communicative repertoire. The extent to which the language in question is used for spontaneous communication *in the immediate context of learning* is highly variable, but the underlying assumption is that the full reward of language learning – the capacity to use the target language spontaneously for one’s own purposes – lies somewhere in the future. The participationist view of L2 development that we advocate and have sought to describe in this article differs from the

acquisitionist approach in two vital respects. First, the goal of L2 development is seen as a gradually expanding capacity to use the target language to participate in the communicative activities of a community (in the case of primary schooling, a teacher and her class and the larger community of the school as a whole); secondly, and consequently, the reward for learning is *here and now*, in the activities enacted in discourse co-created by teachers and learners. The experience of Scoil Bhríde (Cailíní) provides practical support for this argument. The importance of the argument for the teaching and learning of Irish in our school system is difficult to exaggerate. Much of the traditional resistance to Irish rests on the assumption that present learning prepares pupils and students for future use of the language that will never actually happen. But if we embrace a participationist view of learning, what happens in the here and now brings its own reward, as pupils learn Irish by using it and use Irish by learning it. Paradoxically, pupils' gradually developing capacity to make spontaneous use of the language now, in the immediate context of learning, increases the likelihood of its use in the future. It should be noted that this argument depends on a view of the nature of learning in general and not on a particular theory of L2 development.

A participationist view has implications for the way in which curriculum content and learning outcomes are expressed. It is usual to assume that pedagogy and curriculum are independent of each other. But if we want to promote the new linguistic reality envisaged by the PLC, we need a curriculum that makes no distinction between curriculum content, learning process and learning outcomes. A model for this already exists in the *English Language Proficiency Benchmarks* (IILT 2003) developed to support the teaching and learning of English as an Additional Language in primary schools. Based on the first three proficiency levels of the *Common European Framework of Reference for Languages* (Council of Europe 2001), the *Benchmarks* focus on listening, reading, speaking and writing, using 'can do' statements to describe the extent to which EAL pupils can participate in classroom communication at successive levels of proficiency in different areas of the curriculum. Each 'can do' statement simultaneously captures curriculum content, learning process and learning outcome. Articulated in this way, teachers could use the PLC on a daily basis as a practical handbook; it could also play a central role in pre-service primary teacher education.

We have described, analysed and interpreted Scoil Bhríde's approach from various perspectives, and the resulting publications (e.g. Little & Kirwan 2018a, 2018b, 2019, forthcoming) are arousing a great deal of international interest. For example, a summary of Scoil Bhríde's approach serves as the foreword to the European Commission's analytical report *The Future of Language Education in Europe: Case Studies of Innovative Practices* (Le Pichon-Vorstman et al. 2020). In his foreword to our 2019 book, Jim Cummins asked: 'What lessons can educators and researchers derive from the Scoil Bhríde experience?' He

began his answer as follows: ‘A first consideration is the fact that *actuality implies possibility* – educational initiatives that have been successfully implemented in one context can, in principle, be implemented elsewhere’ (Little & Kirwan 2019: xix; italics in original). “Elsewhere” includes the Irish primary sector, and we hope that this article may be of benefit to those who wish to bring about the kind of transformation in the teaching and learning of Irish that the PLC envisages and we have argued for in this article.

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Supporting students with dyslexia in the context of the Primary Language Curriculum

Lauren Scanlon and Patrick Burke

Abstract

The teaching of literacy in Irish primary schools has seen significant change in recent years. Large amounts of time and attention have been invested in negotiating and navigating the *Primary Language Curriculum* (Department of Education and Skills [DES], 2015; 2019), the first nationwide curricular change since 1999. The role of curriculum in supporting students with particular literacy needs is an important one. While our understanding of dyslexia is well-documented in the Irish and international literature (Dyslexia Association of Ireland 2018; Tiernan and Casserly 2018; Reid 2012), the influence of the *Primary Language Curriculum* on teacher practice and perceptions has not yet been researched. Adopting a qualitative methodology, this study drew on an analysis of the documentation relating to the curriculum as well as semi-structured interviews with seven practising primary school teachers. The article highlights a number of findings that are relevant for policy and practice at primary level. Participants reported that they received inconsistent information during professional development, which resulted in inconsistent implementation of the curriculum in schools. In the experience of the participants, this professional development did not provide particular guidance on how students with dyslexia would be accommodated by the new curriculum. Teacher experience and motivation, rather than features inherent in the curriculum, were deemed to be crucial when supporting students with dyslexia. At a broad level, the inclusive philosophy of the curriculum is a strength. However, its lack of specificity regarding specific learning difficulties means that its impact on practice may not be significant.

Introduction

Though there is general consensus on the *importance* of equipping young people with literacy skills during their time in school, there has been significant debate on *how best* to teach literacy in recent decades (Castles *et al.* 2018). In Ireland, the last decade has seen a significant focus on the teaching and learning of literacy in primary schools. It has also seen large changes to the ways in which children with additional needs are supported within our classrooms. This paper examines the intersection between developments in both literacy policy and practice, specifically the introduction of the *Primary Language Curriculum*, and the inclusion of children with specific learning difficulties (dyslexia) in primary

classrooms. We begin with a brief review of the literature on dyslexia before turning to a review of literacy curriculum developments.

Supporting students with dyslexia: International and national practice

The literature on dyslexia is extensive and informative, but not conclusive. Exactly how dyslexia should be defined and diagnosed has been the subject of considerable academic scrutiny (Elliott and Grigorenko 2015). Though this debate continues, it is generally accepted that students with dyslexia encounter difficulties with word-level reading and writing, which are unexpected in light of their age and schooling experience, and which present along a continuum (DES 2001; Rose 2009; Snowling, Hulme and Nation 2020). Deficits in phonological processing are the most commonly cited explanation for these difficulties (Hulme and Snowling 2009), meaning that students with dyslexia may find it challenging to manipulate the sound structure of the language. Dyslexia may manifest itself in other ways, including difficulties with organisational skills, memory and particular aspects of language use (DES 2001; Rose 2009), though these are not considered sufficient indicators in their own right. Evidence-based instruction for students with dyslexia emphasises the importance of explicit and structured instruction in skills relating to the alphabetic code, including phonological awareness, phonemic awareness and phonics (Hulme and Snowling 2009; Shaywitz and Shaywitz 2013; Kilpatrick 2015). Appropriate screening, assessment and intervention is also important for the early detection of potential dyslexic-type difficulties (Snowling 2013). Though much of the research has focused on the phonological aspects of the dyslexic profile, it is important to point out that an inclusive approach demands concomitant attention to the associated social and emotional challenges that children may encounter (Livingston *et al.* 2018).

Findings from the international literature are generally in harmony (at least on paper) with key policy documents in Ireland. The Education Act (1998) advocates for the importance of an education for every child, including those with additional needs. The Act also outlines the need for support services and quality education for all children. The report of the Task Force on Dyslexia (2001), a now highly-cited document in Ireland, acknowledged that pupils should have access to a continuum of provision that meets their needs, throughout their education. The report of the Task Force makes specific reference to a ‘differentiated response’ (p. xiv) with a dual purpose of early intervention to alleviate potential difficulties and provision of intensive support to students whose learning difficulties arising from dyslexia are the most severe. *A Staged Approach to Assessment, Identification and Programme Planning* (Department of Education and Science 2005) outlined a three-stage model of support which was reflected in the National Educational Psychological Service (NEPS) Continuum of Support (2007). The new support allocation model (DES 2017), which replaced the General Allocation Model (GAM), provides greater autonomy to schools in how to arrange teaching resources based on the individual learning needs of pupils. In theory, at least, this means that schools

have the autonomy to deploy resources to provide targeted literacy instruction for children with and without dyslexic-type literacy difficulties. The increased availability of nuanced early literacy assessments (e.g. TEST2r; Cogan 2012) supports this endeavour.

The provision of education for students with additional literacy needs, including dyslexia, continues to be the focus of attention in the research literature in Ireland (Tiernan and Casserly 2018; O'Brien 2019). Shifts in policy continue to have implications for students with dyslexia, including, for example, recent changes to the provision of Irish exemptions in the school sector (DES 2020; Ó Duibhir 2019).

Primary Language Curriculum: Development and implementation

Arguably on a somewhat separate track, wholesale change has been afoot in the curriculum provided for students in primary schools in the past decade.

A review conducted by the National Council for Curriculum and Assessment (NCCA); (2004) highlighted difficulties in the implementation of the English curriculum (1999), which led to the re-presentation of strands and strand units in 2005 (Department of Education and Science 2005). Most notably, the Literacy and Numeracy Strategy (DES 2011) called for a new curriculum that would clearly outline what literacy learning outcomes at particular points during the primary school, including clear demonstrations of what these would look like for teachers. To inform the development of a new curriculum, the NCCA commissioned and published a number of reviews on language and literacy learning (Kennedy *et al.* 2012; Ó Duibhir and Cummins 2012; Shiel *et al.* 2012). Following the publication of the *Primary Language Curriculum* in 2015, the Minister of Education and Skills at the time described the curriculum as a 'significant and welcome reform of how our youngest pupils learn their language skills' (DES 2015). The Minister concluded that 'the success of any curriculum change relies on dedicated, engaged teachers' (*ibid*) and that it is vital that teachers receive the necessary continuing professional development (CPD) to deliver the Primary Language Curriculum to all students. Professional development was facilitated by the Professional Development Service for Teachers in collaboration with the National Council for Special Education (DES 2018). The 2015 version of the curriculum placed particular emphasis on the transfer of skills across languages, but the inclusion of progression continua for each of the strands was potentially its most noteworthy development. These continua ostensibly supported differentiation and inclusion, through the provision of a pathway of sub-skills and concepts associated with each major learning outcome.

As the first edition of the curriculum only addressed junior infants to second class (Stage 1 and 2), development of the latter portion of the Primary Language Curriculum continued during the initial CPD phase. Consultation based on the draft version of the Stage 3 and 4 curriculum included feedback

from the introduction of the curriculum for junior infants to second class (DES 2019). This included significant commentary on what were perceived to be burdensome aspects of the 2015 curriculum. The progression continua, in particular, attracted negative commentary (NCCA 2018a). Drawing on this feedback, the NCCA published the final version of the curriculum for all classes in Autumn 2019. Alongside the inclusion of learning outcomes for third to sixth class, changes in the final version of the curriculum included an increased emphasis on linguistic diversity, higher order literacy skills (e.g. disciplinary and critical literacy) and re-presented material on *Gaeilge*. It was particularly significant that the 2019 version of the curriculum, and its associated documentation, provided further nuance in the presentation and use of the progression continua. Rather than present the continua as part of the core curriculum document, they were re-presented as part of online toolkit (NCCA 2019). CPD to support the final version of the curriculum commenced in the 2019/20 school year and is expected to continue until 2021/22.

In light of the current article, is noteworthy that the *Primary Language Curriculum* (2019) and its supporting documentation does not make any reference to specific learning difficulties or dyslexia, despite the curriculum being arguably the most important document for the teaching of literacy at the most important point of development for learners with literacy difficulties. Notwithstanding the fact that crucial literacy skills like phonemic awareness and phonics are clearly signalled as learning outcomes, with associated progression steps, the curriculum is silent on the particular importance that they play for learners with dyslexic-type difficulties. As all learning outcomes are presented equally, the particular importance of these skills might not be immediately obvious. The curriculum is very explicitly a curriculum for all children in all schools. However, the provision of support for students with specific literacy difficulties is, at best, implicit. The assessment of foundational literacy skills, and their links with the continuum of support, is also not clear; links between practice in special education (such as the Continuum of Support), and the subject matter of the curriculum are not clearly presented in the curriculum or its supporting documentation.

The forerunning review highlights the need to specifically examine teachers' perceptions of the *Primary Language Curriculum*, and in particular, how it supports students with dyslexia. The following section outlines how this was carried out.

Methodology

The paradigm chosen for this research project was the social constructivist paradigm. The social constructivist approach does not proscribe or prescribe any specific way of doing research but rather focuses on a search for understanding of a phenomenon (Cohen *et al.* 2011) The qualitative research design implemented in this study complements the chosen paradigm. Qualitative research is a process for understanding and exploring the meaning individuals or

groups ascribe to an experience (Creswell 2009). Agreement exists in the literature that the researcher holds a central role in qualitative research and therefore the researcher is often considered to be the primary data collection instrument (Creswell 2009; Lincoln and Guba 1995; Robson 2011). This qualitative approach affiliates with phenomenology which is a theoretical point of view that advocates the study of direct experience taken at face value (Cohen *et al.* 2011).

The research was conducted in Irish primary schools during the 2018/2019 school year, which meant that each teacher had some experience of the 2015 iteration of the curriculum and its implementation regardless of their teaching experience. The selection of the schools for the interviews was based on researcher judgement regarding suitability and typicality (Cohen *et al.* 2011). Access to conduct the research was negotiated with the various principals prior to commencement. The final sample comprised seven primary school teachers from various school settings, each of whom had experience of using the *Primary Language Curriculum* and supporting students with dyslexia (see Table 1).

Table 1: Demographic details of the sample

Participant	Years of Experience	Role in school	Current class group	Advanced Role
Participant A	5 years	Mainstream Primary School Teacher	5 th class [2 nd class when PLC released]	N/A
Participant B	12 years	Mainstream Primary School Teacher	Junior Infants [DEIS Band 1]	ICT facilitator, Associate with PDST
Participant C	8 years	Mainstream Primary School Teacher	Junior Infants	Specialism in Language and Literacy [B.Ed in Primary Education]
Participant D	18 years	Mainstream Primary School Teacher	Junior Infants	N/A
Participant E	18 years	Mainstream Primary School Teacher	Junior Infants	Previously Vice Principal, Previously Principal, Worked with PDST
Participant F	30+ years	Mainstream Primary School Teacher	2 nd class	SET for 6 years
Participant G	8 years	Mainstream Primary School Teacher	1 st class [DEIS Band 1]	N/A

Data analysis was an ongoing process throughout the project and involved multiple phases. The qualitative data analysis utilized in this study involved a systematic process of selecting, categorizing, comparing, synthesizing and interpreting to provide perceptions of primary school teachers of the support available within the Primary Language Curriculum for students with dyslexia (McMillan and Schumacher 2001). Following the completion of interviews and the reflexive diary entries, a rigorous method of thematic analysis took place, conforming with Braun and Clarke's (2006) six-phase model of thematic analysis. The first step involved reading and re-reading the interview transcripts to become familiar with the data. Extensive notes were taken during this process in order to record first impressions generated from reading the data. Following this, the initial codes were generated. Once the initial themes were generated, the researcher reviewed the themes and ensured that there was enough data to substantiate the theme. The final step involved defining the themes generated. During that process, the themes were examined, and any sub-themes were identified. The findings are based on these themes (Delahunt and Maguire 2017).

Findings

Teachers Perspective of the Primary Language Curriculum relating to students with dyslexia

A significant strength of the curriculum, as perceived by teachers, was that it enables them to plan more specifically for individual children in their class, allowing the children to progress at their own level. One of the participants stated that “the fact that we can map the children on the continuum for different areas is a real strength, particularly for children with dyslexia” (PB) while another participant stated “I suppose the very fact of all your milestones, it is going to highlight the child with difficulties” (PD). The participants indicated that the curriculum allows for disparity of abilities within the same individual. The inclusivity of the Primary Language Curriculum and its reflection of classrooms in Ireland at present was also highlighted. The curriculum was acknowledged as being “more inclusive and more reflective of society now and what our classroom looks like and the demographic” (PB).

One participant commented on the link between *Aistear* and the PLC stating that, “the biggest strength for me is the link with *Aistear* and the focus that children are now going to be learning through play and there is going to be so much of an emphasis on oral language through *Aistear*” (PD). One participant concurred, stating that:

Aistear is really part of the new language curriculum in the English anyway. It is all about play and about children not sitting there and rote learning and instead getting actively involved...I think it is very good that way (PE).

This echoes the National Literacy and Numeracy Strategy (2011) and McGarry (2017) who highlighted the need for the English and Irish curricula to make explicit links to the *Aistear* framework. When asked about the limitations of the *Primary Language Curriculum*, this participant indicated that, differentiating for children with additional needs like dyslexia, brought about an increased amount of workload on the part of the teacher, with one teacher stating “My biggest thing, I suppose, is that you know it is an increasing amount of paperwork that would be the big thing for me” (PD). The teachers were in agreement that “the curriculum requires a lot of independent research on the part of the teacher which is time consuming” (PA) and “it means a lot more paperwork, a lot more individual assessment” (PC). Participants indicated that, in their view, practical implementation of the curriculum was not considered prior to its roll-out. It was highlighted by participants that they had been practicing the strategies and procedures outlined by the *Primary Language Curriculum* unconsciously for years. They also highlighted overcomplexity of the curriculum in comparison to the previous English curriculum, stating “we were not doing anything a whole lot differently to what we are doing now” (PD). It was suggested that the curriculum was introduced without the resources to complement it, which teachers found problematic. One participant concurred with this notion stating that “I would feel that possibly the people who wrote this haven’t stood in a real classroom for a long time” (PF), outlining the curriculum as “intimidating and daunting” (PF). This participant suggested that the online supports should be “more user friendly” (PF). This was a concern that was highlighted in the *Report on the Consultation on the Draft Curriculum for Stage 3 and 4* (2018a), in which a significant amount of feedback was gathered on the layout and presentation of the progression continua, highlighting that engagement with the document was difficult and cumbersome. The Primary Language Curriculum has produced dichotomous reactions since its implementation; participants commented on the strengths and the limitations in relation to the curriculum. Participants highlighted that with the Primary Language Curriculum, teachers can plan more specifically, especially for children with dyslexia. They commented on the oral language strand stating that its inclusion is a significant positive of the curriculum. However, participants also highlighted the negative elements including the significant increase in paperwork and planning for teachers and the inaccessibility of the online/supplementary supports.

Curriculum Influence on Teaching Students with Dyslexia

According to the participants of the study, the motivation and experience of the teacher is important when implementing the Primary Language Curriculum in relation to dyslexia. One teacher commented “I think it’s all down to the teacher” (PF) and that when supporting students with literacy difficulties that “maybe that comes down to the teacher not giving the correct instructions but sometimes it all needs to be pulled together and managed” (PF). This was echoed by another participant who stated, “I do think that the motivation of the teacher is important” (PB). The participants suggested that the motivation of

the teacher is equally as important as the supports and resources provided, as the teacher must use his/her experience to support all children, including children with literacy difficulties. Differentiation was a dominant topic of discussion during the interviews. Participants remarked on the ways that they differentiate the content to include students with literacy difficulties in their class. It was outlined that “the content would typically be differentiated by what we would expect from them” (PD). A participant alluded to the effectiveness of incorporating the Primary Language Curriculum to differentiate the material; “I suppose the very fact of all the different milestones. You are not teaching the same thing to 30 children” (PD). Participants also outlined the efficacy of differentiating the process to include students with difficulties in their class, highlighting the use of station teaching as a particularly effective strategy for including pupils with literacy difficulties;

having four teachers for literacy...all have different strategies and different ways. So, we would all try and teach in different ways for the children...differentiation through the number of people and the number of children in a group rather than the content (PD).

In relation to implementation of the curriculum, participants mentioned having a basic plan and differentiating it for the higher achievers in the class as well as the students who require extra assistance “to ensure that all children are included you need to have a basic lesson I suppose and then you make it easier or harder” (PE). Participants were unanimous in their views that the CPD they received on the PLC did not support the teaching and learning of dyslexia. Participants outlined that they have upskilled and completed training in relation to dyslexia as the training received prior to this was unsubstantial. One of the participants commented on the benefit of the day and the effective delivery of the course content, stating “I found the day very beneficial and the girl that gave the course was excellent...” (PC). Although the participants admitted receiving training in relation to teaching students with dyslexia during their education and throughout their career, they acknowledged that they still require assistance; “I suppose what we are looking for really is guidance on if we are doing the right thing or not” (PC) for example, the National Council for Special Education (2019) course *Teaching Students with Dyslexia & Literacy Difficulties* would assist teachers in developing necessary skills to teach students with dyslexia. Participants spoke of the particular efficacy of the incorporation of ICT, visual memory games and visual cues when teaching students with dyslexia or literacy difficulties as mentioned in the Primary Language Curriculum. It was mentioned that students with dyslexia have competent oral language and social skills (PC). Participants indicated that the Primary Language Curriculum embraces the strengths and weaknesses of students with dyslexia; “the curriculum allows for a student to excel in certain milestones but require assistance with others” (PB) and “I find the flexibility of the progression continua helpful especially when students struggle in one area and thrive in another” (PC). This corresponds with the literature that acknowledges the aim

of the curriculum to facilitate students to progress at level and pace suitable to their needs (Ó Breacháin and Drudy 2017; NCCA 2017). When posed with the question “Do you think that the Primary Language Curriculum could support a student with dyslexia?”, one teacher replied:

Yes, I think it could. I think there are lots of nice strategies in the support materials...but again I feel that you would have to have a lot of experience...I think if you are an experienced teacher and you have been teaching for a few years you are not going to change your teaching, you are going to tweak it and bring in the ideas from the support materials (PC).

Participants advocated for the use of team teaching or station teaching as a strategy for including all pupils in literacy lessons. It was suggested that the interaction between a higher ability pupil and a lower ability pupil during collaborative work benefits the learner experiencing difficulties. One teacher stated that “the biggest support you can give is early intervention and having as small a group as you can and having adults there...No matter what curriculum” (PD). Other strategies suggested by participants were proximity, observation and establishing a print rich environment.

Limitations of the study

It is important to acknowledge a number of this study’s key limitations, each of which should be borne in mind interpreting its findings. In making conclusions, we must acknowledge that the professional development for the Primary Language Curriculum is on-going at the point of writing (and will continue for some time). It may not be possible to establish the degree to which the inclusive underpinnings of the Primary Language Curriculum translate into inclusive *practice* until a later date. Nonetheless, several points are clear at this juncture. The most significant limitation is that this qualitative study is a small in scale and that the findings cannot be extended to wider populations with the same degree of certainty that quantitative analyses can. Though care was taken to ensure diversity of experiences in the sample, it nonetheless remains small in size. That the fieldwork for the study took place in the 2018/19 year is also worthy of note; changes that were brought about in the 2019/20 school year are not captured in the experiences of the sample.

Conclusion

What can be concluded from this small-scale study? Despite its small scale, this is one of the first empirical research studies that combines the knowledge in relation to dyslexia and the implementation of the Primary Language Curriculum.

As has been highlighted, the participant teachers were broadly positive about the inclusive focus of the curriculum. However, the roll-out of the most important national document for literacy teaching, the Primary Language

Curriculum, does not appear to have provided any greater clarity of purpose or instruction for the teachers in the sample. Notwithstanding its inclusive philosophy, the lack of specificity in the curriculum means that its impact on practice may not be significant. Teachers in this study consistently noted problems with the interpretation and implementation of curriculum. Planning for the Primary Language Curriculum appeared to draw attention away from the actual teaching of literacy, with effort channelled, instead, into paperwork. In the experience of teachers interviewed for this study, the overall focus for literacy teaching was not necessarily enhanced by the introduction of a new curriculum.

Though early assessment and intervention is crucial for students with dyslexia, the Primary Language Curriculum does not explicitly delineate the potential indicators to which a teacher should pay attention. This lack of a specific focus is apparent in the Primary Language Curriculum documentation but was also noted by teachers in the context of the CPD that they received. Future CPD and support materials need to make explicit links between the knowledge base on dyslexia and the intricacies of navigating and planning with the Primary Language Curriculum. While some effective materials are available in this context (e.g. NEPS, 2019), the reality is that teachers must draw on a disparate selection of materials, programmes, policies and planning materials when supporting students with dyslexia.

Related to this point is the finding that, in the view of participants in this study, a teacher's motivation and prior knowledge were seen to be more important in supporting students with dyslexia than anything inherent in the curriculum itself. This may seem like an obvious finding. However, as further analysis is carried out on the Primary Language Curriculum and its implementation, future research should focus on the degree to which the curriculum was retrofitted to fit practices that were already in place and the extent to which its implementation actually spurred more inclusive practices for students with dyslexia.

In order to ensure that the inclusive thrust of the curriculum translates into inclusive practice, in particular for children with dyslexia, we propose a small number of key recommendations:

Continuing and future CPD needs to ensure that concrete links are made between known indicators of dyslexia (e.g. phonological awareness) and how they are represented in the curriculum documentation (e.g. where they appear in learning outcomes and progression continua)

The Primary Language Toolkit (NCCA 2019) should be expanded to include explicit support materials on how children with specific learning difficulties can be accommodated within the context of the curriculum
Future iterations of key policy documents, such as the Continuum of

Support (NEPS 2007), should be updated to include specific reference to changes to the national curriculum, and how, in practical terms, the various inclusive and special education policy documents can be linked

If it is envisaged that the progression continua will be used as an assessment tool for children with literacy difficulties; worked examples of this application should be published.

The Primary Language Curriculum is the first nationwide curriculum change since 1999. Its inclusive aspirations provide great promise for students who encounter literacy difficulties. However, broad aspirations need to be accompanied by specific teaching actions. This small scale study suggests that the curriculum had not yet brought about large changes in practice for students with dyslexia. This may be expected in the early stages of curriculum implementation. Future, larger scale research will no doubt shed further light on this endeavour, and the long-term impact on teaching and learning for students with specific learning difficulties.

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Cracking the Code: Early-Reading Indicators, Text Characteristics and The Lexile Framework for Reading in Primary and Post-Primary Schools in Ireland

Edmond Scannell

Abstract

When we take a child to a shoe shop to get a new pair of shoes, we don't ask the salesperson for a pair of shoes to fit a 10 year old, instead we ask for shoes to fit feet that have just been measured. Similarly, when we want to help a student to read, we can offer them books and articles with a text readability that matches their reading ability. We can now measure text readability in both early-grade texts as well as upper Primary and Post-Primary texts and measure the student's reading ability, with precision and consistency, by incorporating Early-Reading Indicators and the text's Lexile measure, all from a common developmental scale to match reading ability with text difficulty.

This paper presents findings from a small-scale action research study which investigated the use of Lexile measures to differentiate reading instruction and to measure pupil attainment capacity across mainstream Primary and Post-Primary schools in Ireland. This study also measured pupils motivation to read (Gambrell *et al* 2013) since pupils knew their Lexile measure and chose texts that were relevant and of interest at the appropriate level of difficulty. The effectiveness of using Lexile Levelled Passages from free online resources will be discussed. The findings demonstrated that pupils using these Lexile-levelled online resources with suggested frequency exceeded their expected Lexile growth and that the self-selection of materials, enabled by Lexile measures, helped to empower pupils and increase reader motivation and incentive. The findings also showed that teachers and pupils continued to use the free resources and tools once the study was completed. Presentations and practical workshops were held for participating teachers to enable them to become familiar with the tools and resources provided to them during this study, with a particular emphasis on the use of Lexile Analyzer and developing a greater understanding of The Lexile Framework for Reading.

Introduction

The Lexile Framework for Reading is recognised as the most widely adopted reading measure. The Lexile Framework for Reading uses the same scale to measure readers' ability and the level of complexity of reading material.

Matching a reader's Lexile measure to a text's Lexile measure, the reader can expect a 75 percent *functional comprehension* rate. This reading intervention enables students to match appropriate content using their individual Lexile measures to support a range of learning needs (Metametrics, 2020) (Figure 1).

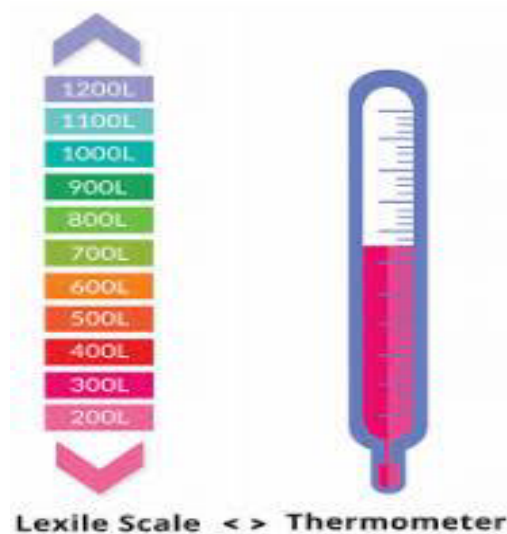


Figure 1. The Lexile Scale (Metametrics 2020)

A Lexile measure is shown as a *number* with a capital “L” after it – for example; **880L is 880 Lexile**. Lexile text measures are rounded to the nearest 10L.

A key advantage of the Lexile scale is that the Lexile Framework measures both text and reader using the same developmental scale. This means that the ability to comprehend and the material being comprehended are being evaluated by the same criteria, lending it greater scientific validity. As numerous researchers and educational practitioners attest, this feature provided classroom teachers with an actionable resource to support differentiated instruction (Chall & Dale 1995; Hall & Moats 1999; Hiebert & Mesmer 2011; Mesmer 2007).

Lexile Relationships

When a reader with a Lexile ability of 1000L is given a 1000L text, we expect them to experience a 75 percent success rate. If the same reader is given a 750L text, then we expect their success rate to improve to 90 percent. If a text is at 500L, their success rate should improve to 96 percent.

Success rates are relative. They are the results of Lexile differences between readers and texts. The 250L difference between a 750L text and a 1000L

reader, results in the same success rate as the 250L difference between a 1000L text and a 1250L reader. Each reader-text combination produces 90% reading success (Stenner 1992).

How do texts receive Lexile measures?

The Lexile Analyzer measures text difficulty on a scale that ranges from beginning texts below 0L to advanced texts above 1600L. Two factors determine the Lexile measures for texts that are 660L and above. They are:

Sentence length: Easier texts have shorter sentences and more use of the same words between sentences. Harder texts have longer sentences and fewer words that overlap between sentences.

Vocabulary difficulty: Easier texts have more common, familiar and concrete words. Harder texts have more rare, unfamiliar and abstract words (Metametrics 2020).

Text Complexity and Lower Primary

For texts at 650L and below, the Lexile Analyzer evaluates text features that are unique to early reading texts (for English text only). Often authors of early reading texts pay special attention to factors that facilitate comprehension such as easy vocabulary and decoding. Repetition and patterning are usually important in texts at this level to help early readers to cultivate reading strategies and skills. To account for these unique features, the Analyzer recognises and evaluates four Early Reading Indicators for texts that are 650L and below (Metametrics 2020) (Figure 2). They are:

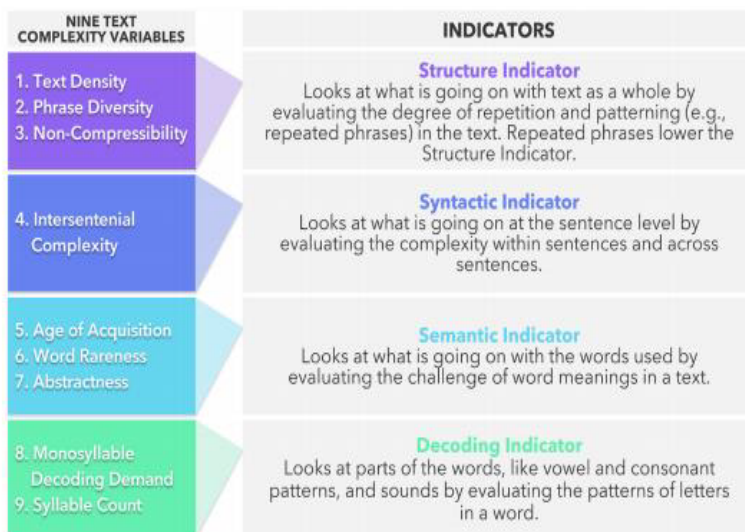


Figure 2. Early-Reading Indicators Derived from Nine-Variable Text Complexity Model (Metametrics 2020)

Structure: Low demand texts have more repeated words and phrases. Harder texts have fewer repeating words and phrases and place a higher demand on the reader.

Syntactic: Low demand texts have shorter sentences and more words that overlap between sentences. Texts that put a higher demand on the reader have longer sentences and fewer words.

Semantic: Low demand texts have more common, familiar and concrete vocabulary. Texts that have more rare, unfamiliar and abstract words place a higher demand on the reader.

Decoding: Low demand texts have words with fewer syllables and simpler sounds (e.g. ‘net’ and ‘shop’). Higher demand texts have words with more syllables and more complex sounds (e.g. ‘balloon’ and ‘ceremony’) (Fitzgerald *et al* 2016).

Debate about the text-complexity standard in early-grade texts is heated (Hiebert 2012, Shanahan 2011, Gamson, Lu & Eckert 2013). Historically, while many pupils have achieved a reading level at or below 820L – by the end of 3rd grade, struggling readers have attained, on average, only about 400L by the end of 3rd grade (Williamson, Fitzgerald and Stenner 2014). For many children, making up the nearly 400L difference from kindergarten through 3rd grade may require Herculean effort (Williamson *et al* 2014).

Readers and Lexiles Scores (Metametrics 2020) (Table 1) and Matching Reading Age to Lexile Level Bands (Scannell, E., Appendix A).

Lexile Score Table from www.lexile.com

Age	School Year	Typical Lexile Level
7	3	300-800
8	4	400-900
9	5	500-1000
10	6	600-1100
11	7	700-1200
12	8	800-1300
13	9	900-1400
14	10	1000-1700
15	11	1100-1700
16	12	1200-1700

Table 1. Readers and Lexiles Scores (Metametrics 2020)

Early-grades texts are special

The early phases of learning to read are critical because they set the stage for later reading and academic performance and even are associated with later risk for social-emotional and health problems. (Masten *et al* 2009). Attaining a just-right text challenge level may be more critical in the emergent reading phase than at any other developmental period (Torgesen *et al* 2001).

To achieve that just-right challenge level for early-grades texts, it is important to understand that Beginner Reader (BR) is a code given to readers and texts that are below 0L on the Lexile scale. A Lexile measure of BR100L indicates that the Lexile measure is 100 units below 0L. Just like +10 degrees is warmer than -30 degrees on a thermometer, a BR100L book is more complex than a BR300L book. Said differently, the larger the number after the BR code, the less complex the text. Similarly, a BR300L reader is less advanced than a BR100L reader (Figure 3).

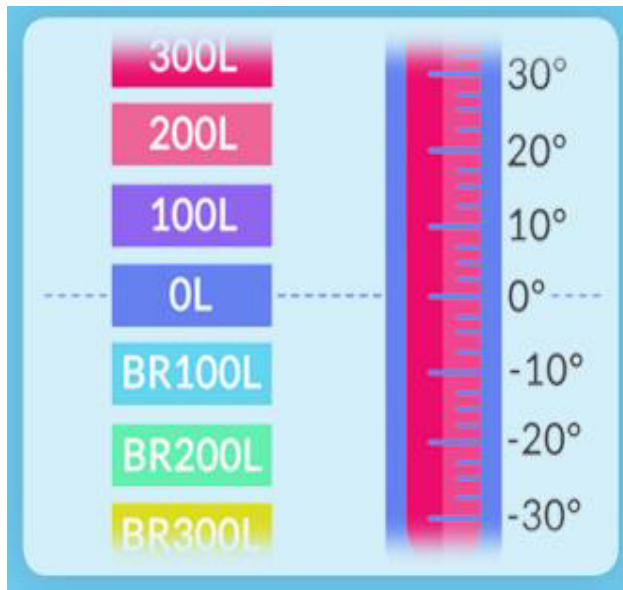


Figure 3. Comparison of the Lexile Scale below 0L to a thermometer below 0°.

Using Text characteristics as Indicators

Before teachers even look at the complexity in texts, they need the knowledge and awareness that early-grade texts differ from upper-grades texts in that they are designed specifically to facilitate young pupils' progress. Making meaning with texts – cracking the code – is always the focus, but young pupils especially

need to develop the ability to hear sounds, develop sight words, and acquire word recognition strategies (Fitzgerald and Shanahan 2000).

What is in a text is important to pupil's reading growth because the presence of certain text features can actually facilitate the development of code cracking (Compton, Appleton and Hosp 2004), and it is not generally as clear-cut as easing back on word meaning difficulty and/or using shorter sentences to bring a text down to the beginning-reader level. Loss of word repetition in texts reinforces sight-word learning and development of the sounds associated with spelling patterns (Vadasy, Sanders and Peyton 2005). Rhyming words advance the ability to hear sounds in words, a critical factor in learning to read (Adams 1990). Words that are familiar in meaning in oral language reduce challenges to meaning creation while reading, permitting more attention to word recognition strategies, such as using context to make guesses at unknown words (Ehri and McCormick 1998). Moreover, texts that combine several types of text-characteristic support may exponentially scaffold and boost pupil's early code-learning development.

Quantitative Text Measurement in the Irish Context

Historically, quantitative text measurement tools have been viewed as less reliable for pupil's early code-learning development in Junior Infants, Senior Infants, 1st & 2nd Class books, which has led to the development of an array of subjective levelling systems, such as Tree Tops, PM Readers, Reading Recovery and others. There has been an absence of quantitative text measurement tools at this crucial level to help support pupils' advancement through progressively more challenging texts, as "they often contain difficult-to-assess features designed to aid early readers in acquiring written language," (NGA Centre and CCSSO 2010, p.8). Research suggests that a large proportion of growth occurs by the end of third grade (Metametrics 2017). For this study, teachers were provided guidance and resources to highlight aspects of text complexity of the materials they encountered, as per the Learning Outcomes (LOs) in the Primary Language Curriculum (NCCA 2015). The guidance was necessary to help delineate and differentiate instruction at this level of the Primary Language Curriculum LOs, in terms of, Conventions of Print and Sentence Structure; Vocabulary; Comprehension and; Fluency & Self-Correction.

As teachers know, not all Lower Primary books are created equally. The text complexity features and demands of the books in this space are varied and unique. The nine-variables in Table 2 above are categorised into four early-reading indicators to help identify important text features in early-reading books that could present less or more of a challenge (demand) to a reader. These reading levels range from very low and low demand, to medium demand, to high and very high demand – the higher the demand, the more challenge that indicator will present to a reader, along with other descriptive information, such as mean sentence length and word count (Metametrics 2020) (Figure 4).

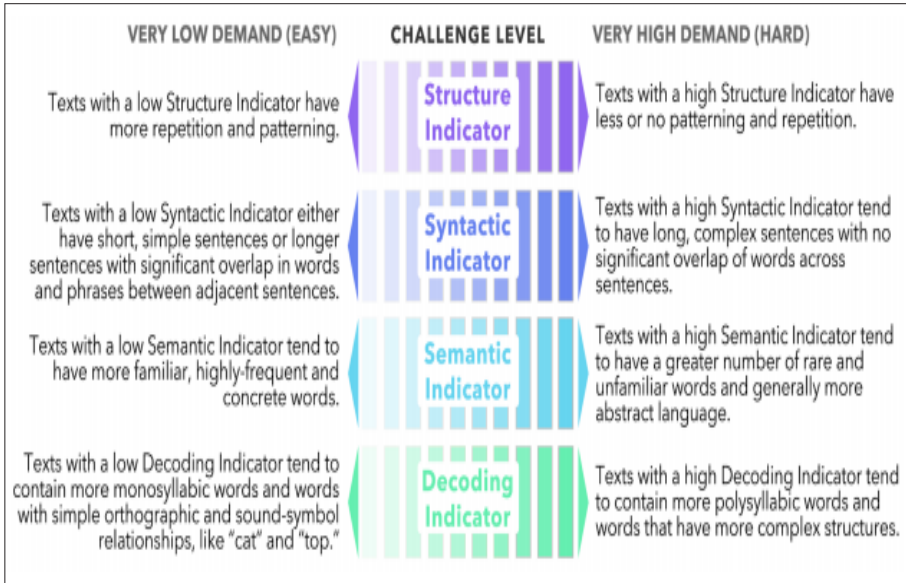


Figure 4. Early Reading Indicators Derived from Nine-Variable Text Complexity Model

Research Design

This study aimed to improve reading gains and increase motivation to read for pupils in both Primary and Post-Primary settings by utilising Early-Reading Indicators and Lexile measures to provide targeted and systematic instruction to pupils in a collaborative teaching context (DES 2017). These aims were reflected in the research questions guiding the study: To what extent does matching a reader's Lexile measure and text measure impact on reading gains and: to what extent does a reader knowing their Lexile measure contribute to readers' election, engagement, endurance and enjoyment.

The study took place in four school settings: an all-girls Primary school; a Youthreach Centre; a mainstream Secondary School and; a Special School (Post-Primary section). This study was designed using an action research model (McNiff 2010) which included quantitative and qualitative data collection methods as described in Table 2 and Table 3.

Quantitative Data Collection Methods		
Pupils	Pre and Post-Intervention Data Collection Methods	Purpose
Whole Class	'Progress in English: Second Edition' Tests 6-11 (G.L. Assessment 2008)	<i>Pre-intervention:</i> To gain a baseline measurement of pupils' Lexile measure. <i>Post-intervention:</i> To gain a post-intervention pupil Lexile measure.
	The Motivation To Read Profile	To assess pupil's self-concepts as readers and the value they see in reading.
Target Pupils	'Progress in English: Second Edition' Tests 6-11 (G.L. Assessment 2008)	<i>Pre-intervention:</i> To gain a baseline measurement of pupils' Lexile measure. <i>Post-intervention:</i> To gain a post-intervention pupil Lexile measure.
	The Motivation To Read Profile	To assess pupil's self-concepts as readers and the value they see in reading.

Table 2. Quantitative Data Collection Methods

Qualitative Data Collection Methods		
Data collector	Data Collection Methods	Purpose
Class Teacher and Researcher	Semi-structured observation of pupils	To capture pupils' experience (Clark <i>et al</i> 2011) during a reading intervention (Topping 2006)
Researcher	Field notes	To record lesson proceedings, changes to methods during the intervention and reasons why.
	Post-intervention semi-structured interview with pupils	To gain insight into pupils' opinions on the intervention
	Pre and Post-Intervention with class teacher.	<i>Pre-intervention:</i> To gather information regarding literacy practices in the classroom <i>Post-intervention:</i> To collect data on the teacher's opinion of the intervention
	Reflective diary	To record inferences, questions, and tentative emerging themes

Table 3. Qualitative Data Collection Methods

The Intervention

The Progress in English (PIE) test (GL Assessment 2008) ranging from test 6 to test 11 were administered to eighty pupils participating in the study pre-test and post-test intervention (Table 4).

Primary School		Post-Primary	
Boys	Girls	Boys	Girls
0	29	30	25
<p>29 girls came from an all-girls Primary School 12 girls in 5th Class (2 no consent) 17 girls in 6th Class</p>		<p>11 students came from a Youth Reach centre 8 girls (1 withdrew) 3 boys (1 withdrew)</p> <p>15 students came from a mainstream Secondary School 2 girls 13 boys</p> <p>29 students came from a Special School (Secondary section) 15 girls 14 boys</p>	
<p>Total Participants 80</p>			

Table 4: Overview of participating pupils

Pre-study training for participating Teachers

At presentations and workshops, the participating teachers were shown how to select and match the ‘just right’ text-complexity level articles and books for their pupils, once a Lexile measure was known. Teachers gained an understanding of the importance of the text characteristics and how they can interplay with one another. Teachers read parts of books and texts to think about the broad constellations of word decodability and word meaning in relation to pupil ages, along with syntactic complexity and the extent of repetition and redundancy.

Rather than relying entirely on a quantitative indicator of text-complexity level or on individual text characteristics, teachers had to think about how characteristics can modulate and balance each other to affect the demand on linguistic knowledge required of the reader. In light of evidence that today’s reading programs tend to have difficult vocabulary, teachers had to observe degrees of repetition and patterning because no patterning or relatively little patterning may couple with the difficult vocabulary to result in relatively high

challenge to students' comprehension (Fitzgerald *et al* 2016). Further, some evidence suggests that text characteristics do influence the early word-reading strategies that young children develop (Compton, Appleton and Hosp 2004; Juel and Roper-Schneider 1985). For example, in one study, when tested on novel words, young pupils who read highly decodable texts outperformed other students who primarily read texts with repetition of high-frequency words (Juel and Roper-Schneider 1985; Gorard, Siddiqui and See 2015).

Prior to the start of the study, teachers were also shown how to differentiate between the text complexities of early-reading books as different kinds of books, even with the same Lexile measure, can emphasise different text characteristics. Different text characteristics can contribute more or less to overall complexity of text. This is especially true for early-reading books (Smith and Turner 2017). *All Birds Have Feathers* by Bruce Larkin and *Hog and Dog* by Diane Wright Landolf have the same Lexile measure, 60L. However the books have quite different characteristics, and consequently their profiles of the four early-reading indicators are different (Figure 5 and Figure 6).

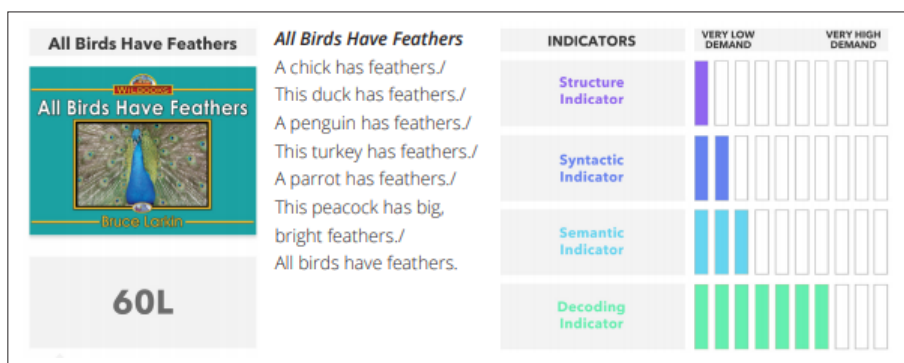


Figure 5. Early-Reading Indicator profiles of Texts with Similar Lexile Measures.

In this example, we looked at what the early-reading indicators tell us about this book '*All Birds Have Feathers*'. It contains many polysyllabic words and some irregular orthography (e.g. feathers), and consequently has a relatively high Decoding Indicator. Readers are able to use the parallel sentence structure to aid in recognising more challenging words like feathers and penguin. This repetitive syntactic pattern is reflected in a very low demand for the Structure Indicator. Texts with repetitive patterns like this book can help build sight-word knowledge and support development of word recognition strategies.

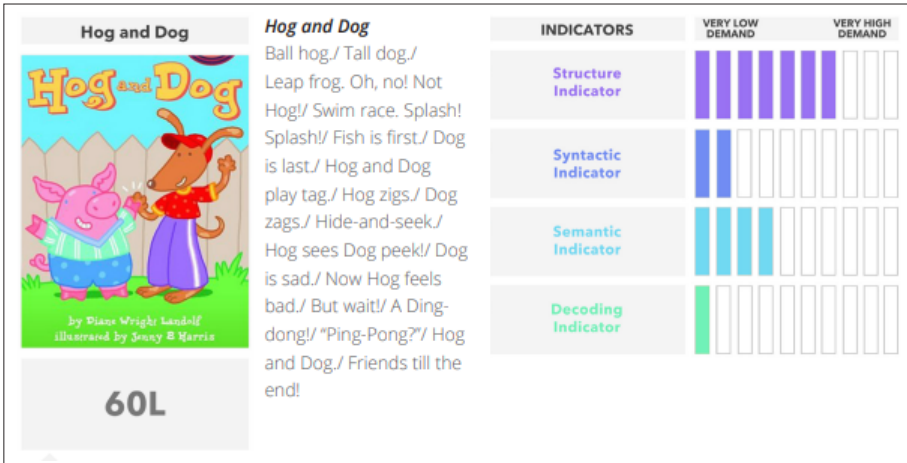


Figure 6. Early-Reading Indicator profiles of Texts with Similar Lexile Measures.

We saw with this book *Hog and Dog* for example, that it uses words that are easier to decode. When reading this book, pupils could use their knowledge of letter-sound relationships and spelling patterns to say the words. The Structure Indicator offers moderately high demand since there is little emphasis on repetitive patterns beyond repeating the words dog and hog.

This pre-study training helped teachers to support pupil’s reading growth by appreciating the specialness of early-grade texts, evaluating the most essential characteristics that make texts complex, looking for text-characteristic see-saw patterns, and realising why a text is more or less challenging. Equipped with a firm grasp of what makes early-grade texts more or less complex, the teachers could usher pupils through texts that are ‘sweet-spot’ matches to their developmental reading needs. Teachers gained the skillset and insight into which text characteristics in a book are more or less challenging and how books with different profiles of indicators can help to support the development of reading skills like decoding or using context to aid word recognition.

The Lesson Methodology

Attainment capacity was measured over the twelve week period, beginning in January 2016, firstly, by establishing a baseline overview from each participating pupil’s Lexile measure, by administering a twenty-five minute whole class Progress in English Assessment. This measure determined on which Lexile levels the pupils began.

Once a Lexile level has been established, the pupils were asked to read at least one Lexile levelled article/or pages of a Lexile levelled book per day over the twelve week period, at their Lexile level. Pupils had a choice of Lexile levelled articles from a variety of online resources or Lexile levelled book which targeted

their Lexile measure or were within their Lexile range and could be read in school and/or at home. The frequency of teaching inputs is important to educational success. Scammacca *et al* (2007) argue for daily or near daily teaching sessions, as does Lingard (2005). Rose (2009) also supports the concept of *'little and often'* (p14). Additionally, it has been found that the duration of an intervention is not necessarily associated with outcomes. In fact, interventions that are of short duration, but intensive, may offer the most efficient approach, (Vaughn *et al* 2000; Brooks 2007).

The more the pupil's Lexile reading abilities surpass the Lexile readability of a text, the higher their expected success rates. However, the more a text's Lexile readability surpasses readers' Lexile reading abilities, the lower their expected success rates. Success rates are centred at 75 percent because readers who read at 50 percent success report frustration, while readers reading at 75 percent report comfort, confidence and interest (the 'sweet spot') which leads to greater functional comprehension (Squires, Huitt and Segars 1983). Crawford, King, Brophy and Evertson (1975) also supported a 75 percent rate in their findings and found that reading achievement for second-graders peaked when their success rate reached 75 percent.

To put this in context, say a pupil had a Lexile measure of 190L; their Lexile range is 100L below and 50L above their Lexile measure, so their Lexile range would be 90L to 240L. Reading at 100L below the Lexile measure would be very comfortable reading while reading 50L above would be very challenging (Figure 7) and (Figure 8). Of course, pupils could choose texts at increment steps of 10L from 90L and 240L in the same genre.




Ellis Island Coming to America	Ellis Island
	
<p>My family is from Russia. We are moving to America. We go by boat.</p> <p>We are poor. We travel in steerage. It is the cheapest. It is the lowest level on the ship. It is gross. It smells bad. It is dark. It doesn't have windows. Many get seasick.</p> <p>Our trip takes three weeks. We stay in steerage. We cannot leave. Many people get sick. A few die.</p>	<p>The ship slows down. We go to the deck. We see America! We see Lady Liberty! Some laugh. Some cry. Some hug. Some cheer.</p> <p>We get off the ship. A small boat takes us to Ellis Island. We are scared. What if they don't let us in? What if they turn us away? We do not want to go back.</p> <p>We get to Ellis Island. We go into the Great Hall. It is 52 feet tall. It is full of people. We get in line. We wait in line for hours.</p> <p>We each get a number. They pin mine to my shirt. Then we see doctors. They check us.</p> <p>Papa once hurt his leg. Now he limps. We cannot go. We must stay for the night. We are scared. Will they send us back?</p> <p>They give us food. The food is odd. There is a fruit. It is long and yellow. What is this fruit? We do not know!</p>


Figure 7. Example of part of a text at 240L, which is 50L above the pupil's Lexile measure of 190L.

Monarch Butterflies




This is a mommy.

Monarch Butterflies




This is a pupa.



This is a baby.

This is a boy.



This is a girl.




Figure 8. Example of a text at 90L, which is 100L below the pupil's Lexile measure of 190L.




Image 1. The RMS Titanic departing Southampton on April 10, 1912, four days before the disaster that claimed more than 1,500 lives. Photo: F.G.O. Stuart/Wikimedia Commons. Licensed under CC BY-SA 4.0

By Live Science, adapted by Newsela staff
Published: 09/29/2020 Word Count: 491

The Titanic is a famous ship. It hit an iceberg and sank on April 15, 1912. More than 1,500 people died. But what made it so deadly? A new study has an idea. A solar storm might have helped cause the disaster.

There were eyewitnesses to the tragedy. They saw strong auroras in the sky as the ship sank. Auroras are colourful light displays. They take place high in the atmosphere. The reason we see auroras is due to solar storms. These are disturbances on the sun. And they can affect Earth.

The sun is mostly made of plasma. This is a superhot mix of charged particles. These particles create magnetic fields as they move. These fields can get tangled. This can cause an energy explosion. There can be a sudden release of plasma bubbles and magnetic fields, too.

Figure 9. Sample of part of a text from www.newsela.com at 560L.

The above examples were from Reading is Fundamental, www.rif.org which was used in the study by the teachers and pupils. On this website, reading passages have 3 Lexile levels with multiple themes to choose from and the mix of fiction and non-fiction passages are differentiated to support independent reading with minimal support and develop reading fluency.

Another website used in the study was www.newsela.com. This website has texts written at five Lexile levels to choose from, as well as three subject areas, English Language Arts, Science and Social Studies, as well as a Topical section for news stories and Election 2020, for example (Figure 9).

Both of these websites track reader preferences and recommend other similar genre stories to encourage further reading.

Sample paragraph from a story about Mr. Spock from Star Trek

250L
Mr. Spock was a character on the show. He had pointy ears. He had green blood. He was half human. He was half Vulcan.

400L
Mr. Spock was a favourite character on the show. He was a pointy-eared, green-blooded alien. Spock was half human and half Vulcan.

520L
Now, a piece of *Star Trek* history is gone. Actor, director, and writer Leonard **Nimoy** died on February 27, 2015. He was 83. He was best known for his role as the half-human, half-Vulcan Mr. Spock on *Star Trek*.

660L
Now, a piece of *Star Trek* history is gone. Actor, director, writer, and photographer Leonard **Nimoy** died on February 27, 2015. He was 83. He was best known for his role as the half-human, half-Vulcan Mr. Spock on *Star Trek*.

780L
Now, a piece of *Star Trek* history is gone. Actor, director, writer, and photographer Leonard **Nimoy** died on February 27, 2015. He was 83. He was best known for his role as the half-human, half-Vulcan Mr. Spock on *Star Trek*.

880L
Now, a piece of *Star Trek* history is gone. Actor, director, writer, and photographer, Leonard **Nimoy**, who is best known for his role as the half-human, half-Vulcan Mr. Spock on *Star Trek*, died on February 27, 2015. He was 83.

980L
Now, a piece of *Star Trek* history is gone. Actor, director, writer, and photographer Leonard **Nimoy**, who is best known for his role as the half-human, half-Vulcan Mr. Spock on *Star Trek*, died on February 27, 2015. He was 83.

1080L
Now, a piece of *Star Trek* history is gone. Actor, director, and writer Leonard **Nimoy** died on February 27, 2015. He was 83. He is best known for his role on *Star Trek*. He played the half-human, half-Vulcan Mr. Spock. Spock had pointy ears. He had green blood. He tried to remain **logical** at all times.

Figure 10. Sample of text of a paragraph from Mr. Spock written at eight Lexile levels.

Other text resources used in the study were written by this author. Figure 10 shows the same paragraph taken from eight Lexile levelled versions of an article entitled ‘Mr. Spock’. It demonstrates how paragraphs become more complex as the Lexile level increases. The subtle changes in text complexity do not always have to occur in every paragraph at every level, thereby allowing for a seamless reading transition for the reader at each level. Writing differentiated Lexile levelled texts ensures that each reader can read about the same story, but at their own reading level. Each Lexile level was analysed using the ‘Lexile Analyzer’ tool on www.hub.lexile.com. The use of both the ‘Lexile Analyzer’ and ‘Find a Book’ tools were demonstrated to teachers on www.hub.lexile.com and www.rif.org at the workshops (Figure 11).

The ‘Find a Book’ tool was used to incrementally increase the text complexity of a particular genre, in this case, ‘Natural Disasters’. The increment gaps are based on the needs of the reader.



Figure 11. Using the ‘Find a Book’ tool to locate books of interest at incremental Lexile levels.

Measuring motivation

Each reader has his/her own range of reading comfort. As a result, there is a natural range of text readability that motivates each reader to improve reading ability. When we want to help students read, we find their Lexile measure and then offer books with a readability that matches their reading ability. If we want our pupils to read by reading, then we want to give them material that fascinates, motivates, absorbs and also challenges them.

Measuring motivation to read for this study involves gauging the student’s preference of reading topics for the articles used in the study. The pupils were

asked to rank their preferences in order and every effort was made to source these topics of interest. “Creating interest in reading”, was rated as the most important area for future research, according to a national survey of teachers (O’Flahavan, Gambrell, Guthrie, Stahl and Alvermann 1992). The value teachers place on motivation is supported by a robust research literature that documents the link between motivation and achievement (Elly 1992; Gambrell and Murrow 1996; Guthrie, Schafer, Wang and Afflerbach 1993; Purves and Beach 1972; Walberg and Tsai 1985; Wixson and Lipson 1991). The results of these studies clearly indicate the need to increase our understanding of how pupils acquire the motivation to develop into active, engaged readers.

Findings and Discussion

The majority of pupils in this study were of post-primary age and were selected from classes to form groups due to their low reading ages relative to their chronological ages (14 years to 18 year old) and subsequent low Lexile measure at pre-intervention test.

Quantitative Findings

Results are true across time and across different settings. The implementation was staggered due to some schools taking longer than expected to set up computer stations, one site had issues with connectivity, while another site had to keep changing rooms. These were not issues in the Special School setting. It took more time than planned or anticipated to get all the pieces in place to fully implement the programme with fidelity.

However, despite these challenges the pupils have made significant gains in reading as measured by the PIE test, which measures pupils’ Lexile level of reading. When you use both Lexile reader measures and Lexile test measures, you can treat each student as an individual learner, rather than as below-grade, on-grade or above-grade.

Combining the scores of the pupils and by following 12 weeks of intervention using Lexile levelled non-fiction articles and Lexile levelled books, pupils showed a reliable improvement in reading from baseline to end of 12 weeks, based on the difference between two mean scores (in this case, pre-test and post-test). All participating schools showed positive gains.

Lexile Growth* Related to Frequency of Use

Pupils using the program with suggested frequency exceeded their Lexile growth by an average of 57 Lexile points.

Fifty-two pupils made over 1.5 times their expected growth at the end of the 12 week intervention. Eleven pupils had already achieved a maximum Lexile score at the pre-test stage and so any further improvements to their reading abilities could not be measured using the PIE Test, however their motivation to read was measurable (Table 5). Twelve out of the seventeen pupils who nearly doubled their expected growth were from my own base class (Table 6).

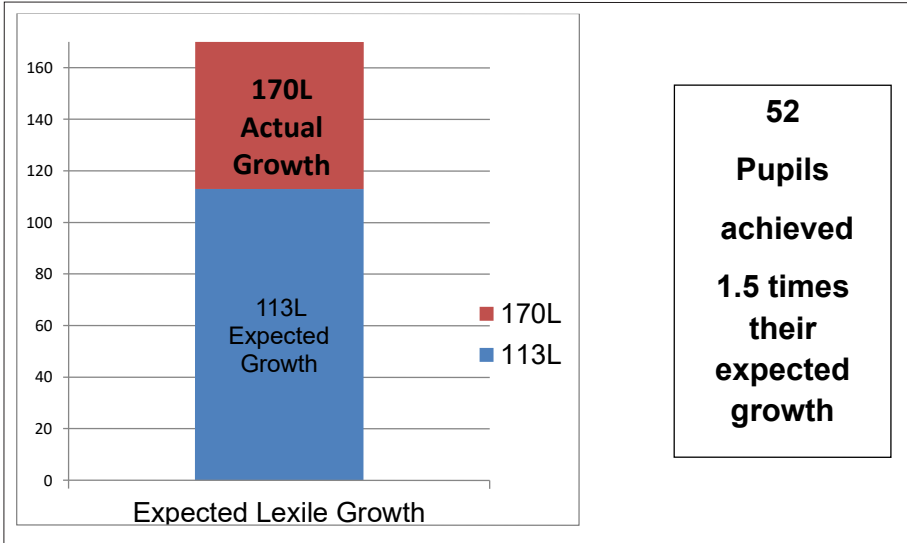


Table 5.

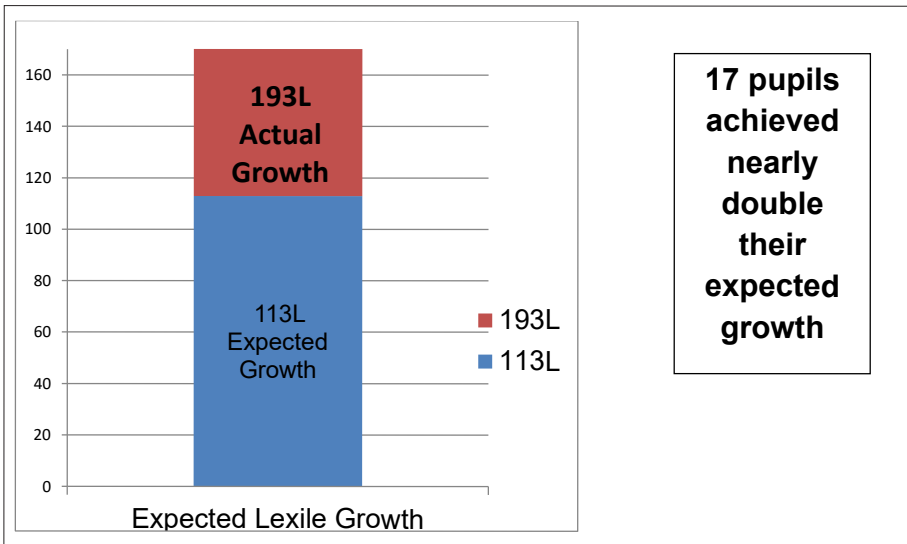


Table 6.

Key Findings

On average, pupils using the online Lexile levelled resources with suggested frequency achieved more than the Lexile growth expected with typical instruction. Readers from Post-Primary achieved higher-than-expected Lexile

growth. Pupils who scored 75 percent or higher on the multiple-choice activity made the greatest Lexile growth on average. With the help of trained teachers in choosing books, and reading at the ‘just right’ Lexile level, struggling readers (pupils reading below their grade level) made more than their expected growth, on average. Special School pupils using the methodology with suggested frequency made more than twice their expected growth, on average. *100-113L (Lexile) is approximately equal to a year’s growth at grades 3-5, 76L – 88L at grades 6-8 and 50L at grades 9-12(Williamson 2009:7).

The Motivation to Reading Profile measures (i) Self-Concept as readers, i.e. self-perceived competence in reading and self-perceived performance relative to peers and (ii) Value on reading, i.e. frequency and reading-related activities.

Pre-Intervention:

Results of self-concept and value, show students rating *themselves* as ‘C3’ to ‘C2’ students, on average (Table 7).

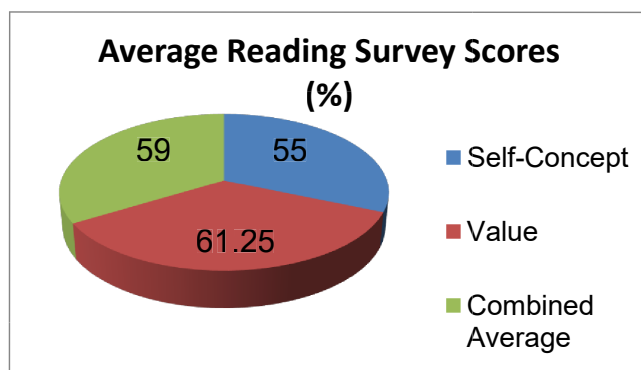


Table 7.

- The average pre-intervention self-perceived competence rating and self-perceived performance relative to peers rating was 22/40 or 55 percent (C3).
- The average pre-intervention value on reading rating was higher at 24.5/40 or 61.25 percent (C2).

Post-Intervention:

Results of self-concept and value, show students rating *themselves* as ‘B3’ to ‘B1’ pupils, on average (Table 8).

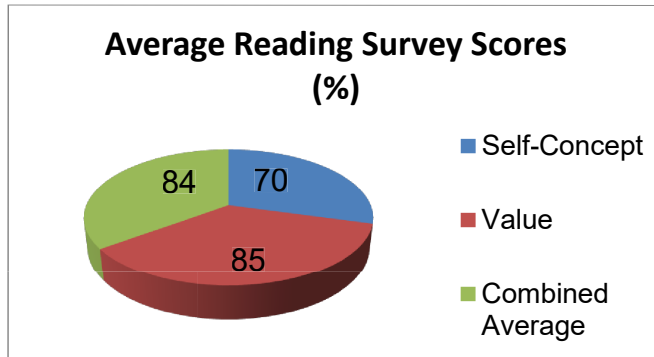


Table 8.

Limitations of the Research

One limitation of this study is the constraints of the pressures and demands of the curriculum and certification programs at second level which curtailed a revisit to all of the students to show that progress was maintained over time. Certification and exam pupils had re-engaged with their respective programs, and so, time constraints put the reading program ‘on the back burner’.

Another limitation is that it describes one cycle of action research over a 12 week time period; however, the findings could inform future research practice and inform the context where it was undertaken.

Also, the GL Assessment Progress in English (Second Edition) tests used in the study was normed on a population of British school children based on the National Curricula of Northern Ireland, Scotland, Wales and England. These variables may have contributed to maximum pre-text scores of 1155L on PIE 11 test achieved by the girls in the all-girls Primary school, which then hindered reliable post-test scores to be achieved (Appendix B).

Recommendations

Perhaps in the near future, standardised tests normed to the Irish population could be linked to a Lexile measure through a linking study with Metametrics, thereby not only measuring a reading age, but also a corresponding Lexile measure.

Conclusion

Follow-up interviews with students revealed a much-improved perception of self as a reader and the value they placed on their reading. Comments made to justify this were;

“I liked the [bizarre] stories.” (Stories such as ‘Airport Sniffer Mice’ and ‘Dream Jobs: A Stunt Performer’) were some of the articles mentioned

as “very likeable” and “interesting”. Other pupil comments referred to the fact that each knew their own Lexile reading level with which they felt “fit” [their reading level], and were “comfortable”, or “happy enough” with their Lexile reading level.

The result of a re-visit to each school revealed that, following the study, there was continued participation with the Lexile levelled reading texts among pupils in Primary school and, in particular, pupils in Secondary school who were studying for certification programs (Junior Certificate and Leaving Certificate Applied). Participating teachers in secondary school settings, who were involved in certification programs, cited pressures of covering the curriculum textbooks and preparing for exams as the main reason for not returning to Lexile levelled reading passages once the study ended, in spite of the visible gains made in reading levels and motivation to read.

Sharing Lexile measures with pupils, modelling allocating Lexile levelled reading passages and choice of appropriately Lexile levelled books, and tailoring reading passages to suit the reader’s Lexile level using the Analyzer, were eminently suitable pedagogical approaches and provided a context in which pupils’ reading levels and motivation to read could advance. The methodologies and initial teacher training in text characteristics and indicators presented in this article can support teachers to shape instructional practices in their classroom to enable their pupils to achieve the skills and competencies as stated by the Primary Language Curriculum (NCCA 2015).

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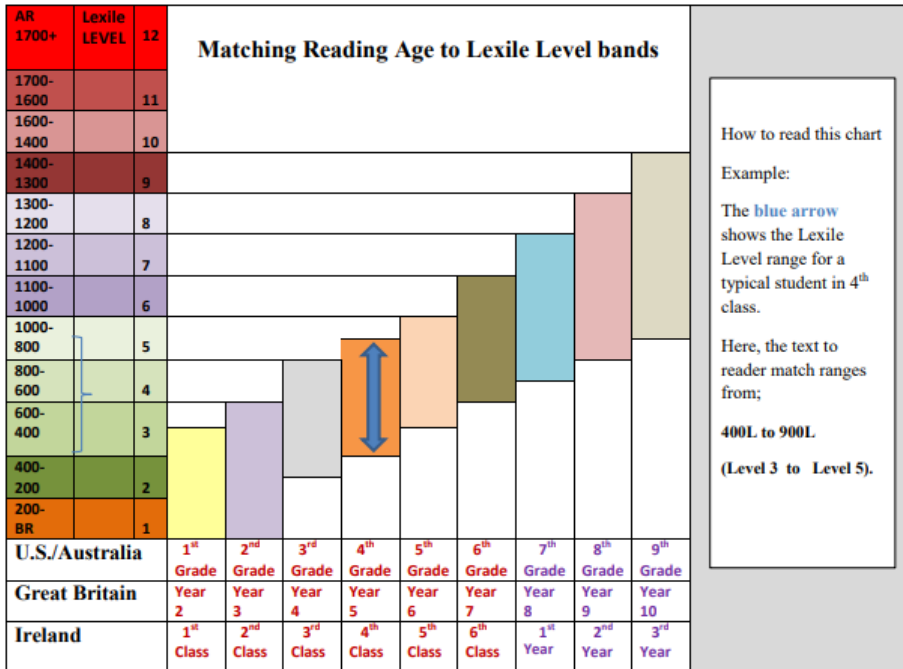
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Appendix A Matching Reading Age to Lexile Level Bands (Edmond Scannell 2015)



Appendix B

Progress in English 7-11: Finding out your pupils' Lexile measures (GL Assessment 2008)

Progress in English 7-11: Finding out your pupils' Lexile® measures

Progress in English: Combined raw scores for Exercises 3 and 4	Lexile Measures				
	Progress in English 7	Progress in English 8	Progress in English 9	Progress in English 10	Progress in English 11
0	BR*	BR	BR	BR	135L
1	BR	BR	BR	100L	265L
2	BR	BR	120L	240L	405L
3	BR	60L	210L	330L	490L
4	BR	125L	280L	400L	555L
5	BR	180L	340L	460L	605L
6	BR	230L	390L	510L	655L
7	20L	275L	440L	555L	695L
8	70L	320L	485L	600L	735L
9	125L	365L	530L	645L	775L
10	180L	405L	570L	685L	815L
11	235L	445L	615L	725L	850L
12	295L	490L	655L	770L	890L
13	360L	540L	700L	815L	930L
14	435L	590L	750L	860L	975L
15	530L	650L	800L	910L	1020L
16	635L	720L	855L	970L	1075L
17	635L	815L	925L	1040L	1140L
18	-	870L	965L	1060L	1155L
19	-	870L	965L	1060L	1155L
20	-	870L	965L	1060L	1155L

BR* = Beginning Reader

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Using Visual Schedules to Support Children with Autism Spectrum Disorder

Amy Curtin and Stella Long

Abstract

This paper investigated teachers' perspectives of the impact of using visual schedules for children with Autism Spectrum Disorder in primary school settings. Specifically, it identified how visual schedules are used in the classroom. In addition, the benefits and challenges to their use are presented and discussed. The study adopted a qualitative approach and gathered data from primary school teachers through the medium of interviews and reflective diaries. The findings of this small-scale study illustrated that visual schedules are an effective intervention strategy that result in a reduction in behaviour that challenges, lower anxiety levels and increase on-task behaviours for children with ASD. Benefits to all children was also noted. Access to professional development for teachers would further enhance their capacity to implement visual schedules effectively in their teaching.

Introduction

Guided by international trends and policies, educational provision for children with Special Educational Needs (SEN) including those with Autism Spectrum Disorder (ASD) has undergone significant transformation in Ireland and elsewhere in recent decades (UNESCO 1994; Government of Ireland 2004; Daly *et al.* 2016; Ring *et al.* 2018). The process towards inclusive education has resulted in a continuum of educational provision for children with ASD (NCSE 2015; Daly *et al.* 2016). This includes the opportunity to access education in both mainstream and special schools with placement options available in dedicated ASD classes in primary and post-primary schools. The extent of the educational needs of the child with ASD determines their educational placement and the level of additional supports (special education teachers and/or special needs assistants) required (Bond *et al.* 2016). Recent research suggests that some 1.55% of the school population have ASD and are in receipt of additional supports/resources in schools in Ireland (NCSE 2015).

Autism Spectrum Disorder

Autism Spectrum Disorder (ASD) is a term that continues to evolve and remains difficult to define (Phetrasuwan *et al.* 2009; AsIAM 2020). While the characteristics of ASD vary for each child, common traits are generally identifiable (Frederickson and Cline 2015; Bond *et al.* 2016). Children with ASD have been identified as having difficulties in social interaction and

communication in addition to having restricted, repetitive and stereotyped patterns of behaviour (APA 2013; Loth *et al.* 2008). Commonly known as the Dyad of Impairments, difficulties lie on a continuum (Levels 1 – 3) and range from children requiring support to those requiring very substantial levels of support (APA 2013).

A theoretical base has emerged in the literature aimed at understanding the causes of ASD (Beaumont and Newcombe 2006). The seminal work of Baron-Cohen, Leslie and Frith on *theory of mind* and its deficits in children with ASD provide an explanation for the social communication challenges they experience (Morgan *et al.* 2003). Children with ASD may have difficulties across a range of social communication skills. Visual approaches adopt a strengths-based means to support social communication for children with ASD (AsIam 2020). Social Stories are one such example (Reynhout and Carter 2011). *Central coherence theory* in atypical development explains a person's ability to process information implicitly and automatically (Morgan *et al.* 2003). Children with ASD tend to process information by focussing on individual elements rather than adopting a broader, global perspective. This may lead to them becoming overly preoccupied with repetitive behaviours, specific details and interests (South *et al.* 2007). Weak central coherence may also explain why children with ASD find generalising skills to different contexts challenging (Reynhout and Carter 2011). *Executive Functioning* is defined as 'the ability to problem-solve in order to understand and/or achieve a particular goal' (AsIam 2020, p. 20). Children with ASD may experience difficulties in this area which impact on their ability to plan and to be responsive to changing routines (Robinson *et al.* 2009). They may adhere to familiar routines and sequences and may experience anxiety when new and unpredictable routines are encountered (Hodgson 1999). Incorporating visual schedules into everyday routines provides a strengths-based approach grounded in the research literature to enhance the development of executive functioning by supporting understanding, providing structure and predictability for children with ASD (AsIam 2020; NCSE 2020; Egan 2018; Hugh *et al.* 2018).

Understanding the etiology of ASD continues to be the focus of international research. The research findings of the validity, overlap and limitations of each theory will strengthen the research base to support the education of children with ASD.

Visual supports

As educational systems continue to demand higher outcomes for all children, evidence-based strategies or practices (EBPs) are often implemented. These practices have been proven to yield positive outcomes for all children and have attracted the interests of teachers including special education teachers (Cook and Tankersley 2012; McLeskey *et al.* 2017). Given the continuum of needs of children with ASD, the research acknowledges that no single educational intervention will meet the needs of all learners (Conroy *et al.* 2011). However,

visual supports have emerged as a validated intervention model for addressing a variety of needs for children with ASD (Meadan *et al.* 2011; Foster-Cohen and Mirfin-Veitch 2015; Sam and AFIRM Team 2015; Rutherford *et al.* 2020). Visual supports are defined by Arthur-Kelly *et al.* (2009) as ‘pictorial and graphic stimuli that enhance comprehension and learning in individuals who may otherwise struggle with communication’ (p.1475). They capitalise on the visual strengths of children with ASD (Earles-Vollrath *et al.* 2006). Critically, visual supports decrease dependency of children with ASD on adults and, therefore, facilitate independence and self-esteem (Bryan and Gast 2000). There are a number of different types of visual supports including visual schedules, information sharers, checklists/organisers, behaviour and teaching supports.

This paper specifically focuses on visual schedules and their role in managing behaviour during transitions, in increasing independence and on-task behaviour. Challenges to the use of visual supports such as time, access to resources and professional development for teachers will also be critically discussed.

Visual schedules

Visual schedules comprise of a series of objects, pictures or words which act as a prompt to predict a sequence of events (Banda and Grimmert 2008, Knight *et al.* 2014, Macdonald *et al.* 2018). They are described as a visual intervention that enhances the autonomy of children with ASD by constructing predictability and structure in their routines (Wong *et al.* 2015). Furthermore, Goodman and Williams (2007) suggest that visual schedules are beneficial for children with ASD as they “clearly indicate what has been completed and what must be done next” (p.54). Research has attested that visual schedules can be utilised for a variety of reasons. These include aiding children of different ages and abilities to deal with routines, supporting transitions between activities, supporting on-task behaviour, behaviour that challenges and social skills (Koyama and Wang 2011).

There are two categories of visual activity schedules; between-activity schedules and within-activity schedules (Banda *et al.* 2009; Ganz 2007). Between-activity schedules show the sequence of specific activities and are often utilised to aid transitions, to anticipate events and changes in routine. The second type of schedule identified by Banda *et al.* (2009) is the within-activity schedule. These schedules are utilised for children that require a more in-depth approach to task-analysis (Shevlin *et al.* 2013). They support learning by breaking the task into steps to aid completion and independence.

Managing behaviour during transitions

As children with ASD like routine, transitions both within and outside the classroom can cause them significant stress resulting in behaviour that challenges (Humphrey and Lewis 2008). Children with ASD who have difficulties in social communication may exhibit more extreme behaviours. Disruptive behaviour may impede the learning of both the child with ASD and his/her peers (Banda *et al.* 2009). Visual schedules are validated means for reducing behaviour that

challenges. By supporting verbal instruction with visuals, children with ASD find it easier to anticipate events and subsequent changes to daily routines/activities (Cohen and Sloan 2007 cited in Meadan 2011). Research notes that if the steps of a routine are displayed visually in a sequence with a specific start and end, children are more likely to accomplish the routine successfully without behaviour that challenges (Schneider and Goldstein 2010). Furthermore, the use of visual communication may improve the understanding of behavioural expectations in the classroom for children with ASD (Spriggs *et al.* 2015).

Independence and on-task behaviour

On-task behaviour is described as the time spent giving attention to a certain task (Prasad *et al.* 2013). Research demonstrates that when visual schedules are used, the independent on-task behaviour of children with ASD, significantly improves (Cuhadar and Diken 2011, Carlile *et al.* 2013). This concurs with the research of van Dijk and Gage (2018) who identified that children with ASD have increased participation and greater independence when using a visual schedule. However, a study by Zimmerman *et al.* (2017), found that activity schedules were not the only factor supporting children's independent transitions and on-task behaviour. Their research suggested that systematic instruction must be used simultaneously with visual schedules to ensure success. Guidance, prompts and reinforcement are recognised as essential in the succession of the implementation Practice guides for teachers and other forms of professional development further enhance teacher skills when adopting visual supports in their classrooms (Sam and AFIRM team 2015).

Professional development

Effective inclusive education systems are dependent on teachers who are skilled in inclusive practices (Rose *et al.* 2015; Woolf 2019). However, research studies provide firm evidence that many teachers feel that they do not possess the skills to support all learners in inclusive settings (Shevlin *et al.* 2013; Hick *et al.* 2018; Long 2017). While it is recognised that initial teacher education provides initial insights into inclusive practices, the role of professional development is critical to ensuring higher teacher self-efficacy levels for inclusive practices (Long 2018; de Boer *et al.* 2011).

Time and resources

Research attests that the amount of time and resources needed to implement intervention programmes to aid children with SEN in classrooms presents a challenge to teachers (Westwood 2013). In the context of visual supports, namely visual schedules, time is necessary to systematically instruct the child to independently manipulate the schedule and to subsequently ensure generalisation of the skill in a variety of activities and settings (Banda *et al.* 2009). The lack of time can cause limitations for teachers by inhibiting their effort to employ this intervention in their classroom. Furthermore, larger pupil-teacher ratios create a greater challenge for teachers to develop and implement inclusive practices. Larger class sizes can create deficits in teacher confidence when teaching children with SEN (Avramidis and Norwich 2002).

Evidence has been presented to indicate the positive impact of incorporating visual schedules into intervention programmes for children with ASD. Notwithstanding the positive impacts, the literature notes the challenges for teachers when using visual schedules.

Methodology

This study identified teachers' perspectives of the impact of visual schedules for children with Autism Spectrum Disorder. Specifically, it focused on their implementation of visual schedules in the classroom and the barriers they experienced when using them.

Purposive sampling was utilised in this research study. This ensured the identification and selection of "groups of individuals that are especially knowledgeable about or experienced with a phenomenon of interest", relevant to the research study (Creswell and Plano Clark 2011 cited in Palinkas *et al.* 2013, p.2). Participants currently teaching a child with ASD and using a visual schedule to support their teaching and learning were purposively sought. It was ascertained that the participants were using visual supports prior to the interview. The sample consisted of eight primary school teachers (two male and six female) located in schools in the Munster region. Four participants held mainstream teaching positions, two were special education teachers while two participants taught in special classes designated for children with ASD in primary schools.

Adopting an interpretivist stance, the research study concentrated on participants' constructed interpretations and meanings of the issue (Ormston *et al.* 2014). Using a qualitative approach to data collection enabled the researcher to gain a deep understanding of the lived experiences and perspectives of the participants, teachers of children with ASD (Marshall and Rossman 2006; Silverman, 2010). The first phase of data collection used semi-structured individual interviews to explore and provide "data which gives an authentic insight into people's experiences" (Silverman 2001 p.87). The informal, conversational quality of an interview allowed for a deeper exploration and analysis of particular areas of interest to the participant and critical to the study (Longhurst 2010). Additionally, it provided the researcher with the opportunity to gather extensive data quickly (Marshall and Rossman 2006). Semi-structured interviews were selected as it enabled the researcher to "adapt, modify and add to the prepared questions if the flow of the interview talk suggests it" (Cousin 2009, p.72). In addition to interviews, participants completed a Reflective Journal over a five-day period documenting their reflections on their use of visual schedules to support children with ASD (Flick 2018). This data provided the researcher with further insights into their critical reflections on their practice and possible future use of visual schedules. The process of thematic analysis as advocated by Braun and Clarke (2012) allowed the researcher to analyse the data and to identify the emerging themes.

Findings and Discussion

The findings of this study examining teachers' perspectives of the impact of visual schedules for children with ASD will be presented. Following thematic analysis, three themes arose:

- Visual schedules in the classroom;
- Advantages of visual schedules;
- Barriers to implementing visual schedules in the classroom.

Visual schedules in the classroom

Visual schedules consist of a series of objects, pictures or words that identify and prompt children for a predicted sequence of events (Banda and Grimmer 2008, Knight *et al.* 2015, Macdonald *et al.* 2018). All of the participants in this study used between-activity schedules to support children with ASD. Participant 2 indicated that she used a pictorial visual schedule to '*...highlight the lessons or activities in order of sequence for the day*'. The participants indicated that the type of visual schedule used correlated with the priority learning or behavioural needs of each child. As Participant 8 stated '*... it is necessary to create one with specific regard... to the needs and interests of the child*'. This supports the finding of research undertaken by Banda *et al.* (2009) and Mesibov and Shea (2011) that the child's interests and abilities must be considered when creating the visual schedule. Doing so acknowledges the child's interests and strengths, relates to the child's personal life and thus leads to generalisation over time. Seven of the eight participants used photographs to represent the activities on the visual schedules for their pupils. Participant 4 reported that it was '*...easier to communicate with my child with ASD through visuals than talking... more information is taken in and less frustration is built up*'. Two other participants agreed that using visual schedules supported children with ASD to remember directions as it '*works as a constant reminder without the need for me to repeat*' (P6). These findings correlate with those of Knight *et al.* (2015) and Hodgson (1995) who noted that children with ASD tend to have auditory deficits and find it easier to process visual information.

Four participants, all teaching in a mainstream classroom, indicated that they implemented the visual schedule in a group context. The reasoning behind utilising a group visual schedule varied, but all were related to the inclusion of the child and ultimately, to prevent a reduction in the confidence, self-esteem or social interactions of the child with ASD. "*I wanted to ensure the child with ASD was not singled out*" (P1). Participant 3 stated that the visual schedule used in a group context "*acts as a conversation starter between all children, especially between the child with ASD and other children as he has specific interest in it and really ... all children are excited to see what they will be doing for the day*". Meadan and her colleagues (2011) agree that using visual schedules can have a positive outcome for the social interactions of children in the classroom.

Participants who were teaching in a special class for children with ASD and those who held special education teaching posts tended to use individual schedules for their pupils with ASD. These schedules included an element of choice as identified by the individual child. This concept is recognised in the literature by Smeltzer *et al.* (2009) who state that offering the child choice within a visual schedule can decrease the prospect of behaviour that challenges during transitions in the classroom. One participant stated that including a reward of choice was ‘*essential to allow the child to have ownership and autonomy over the schedule*’ (P5).

Advantages of visual schedules

The findings based on the semi-structured interviews and reflective journal highlighted that all of the participants were in agreement that using visual schedules impacted positively on the behaviour and learning of children with ASD. In addition, using visual schedules had benefits for all children in their classroom. Therefore, the impact of visual schedules is presented in three categories: *behaviour*, *teaching and learning* and *benefits for all children*.

Participants in this study indicated that one of the key purposes of using visual schedules was to inhibit anxiety and behaviours that challenges during classroom transitions. Children with ASD in this study exhibited various types of behaviour that challenge. Some children experienced emotional behaviours such as crying while others withdrew themselves from activities. More severe behaviour that challenges was apparent in the form of physical behaviours such as ‘*aggression*’ or where children were ‘*physically harming*’ themselves. In the interviews, five of the eight participants indicated that representing the predictability of the day through visual schedules was necessary to reduce or eliminate behaviour that challenges. Participants identified that visual schedules ‘*reduce worry about what was coming next or why we were changing to this subject*’ (P3) while another participant stated that using visual schedules supported ‘*transitions differing to the normal routine which caused utmost tension and anger*’ (P5). The research of Humphrey and Lewis in 2008 corresponded with the views of the participants. They argue that a change in a routine for a child with ASD is a significant element of stress which can lead to an outburst of behaviour that challenges.

Participants noted improvements in the behaviour of their pupils when using a visual schedule. Participant 2 was ‘*astonished with the results when I first implemented one in my classroom*’. All participants identified a reduction in the number of behaviours that challenge presented by children with ASD when transitioning from one activity to the next. Participant 5 suggests that the visual schedule ‘*gives the child subconscious expectations for behaviour and allows them to relax and then display positive behaviour and really...their happiness is the key to success in achievement in the classroom*’. These findings support those of Cihak and Ayres (2010) and Waters *et al.* (2009).

On-task behaviour was referred to by all participants as an area where the use of visual schedules was beneficial (Carile *et al.* 2013). One participant noted that

using a visual schedule reduced the *'unpredictability of what the child had to complete... highlighting the subjects before and after lunch supported the child's attentive levels'* (P8). Some participants used the within-activity schedule to provide increased support for the on-task behaviours of children with ASD. Similar to the research undertaken by Banda *et al.* (2009), Participant 7 noted that *"The schedule that divides a task down into smaller parts is such an effective tool to helping the children to concentrate and complete it step by step"*. Participant 5 suggests that *"without a schedule for big tasks and with an absence of confidence in certain subjects, the child with ASD can give up before he even starts"*. This research concurs with Bryan and Gast (2000) whose research suggests that when visual schedules are employed, further time was spent on tasks.

Research has revealed that the visual schedules have a direct impact on the ability of children with ASD to learn (Goodman and Williams 2007). Participants in the current study felt that their use of visual schedules was a positive support in the teaching and learning process. Using visual schedules *"maintains a child's concentration in the classroom which leads to more attentiveness ..."* (P5). The most significant learning outcome for visual schedules was the facilitation of independence and autonomy for the child with ASD in the classroom. Several research studies have indicated that the use of visual schedules can facilitate the learning of independent behaviours (Blum-Dimaya *et al.* 2010; Carlile *et al.* 2013). Following the intervention of a visual schedule in the research study completed by Blum-Dimaya *et al.* (2010), all children generalised the skill and achieved high levels of performance without the need of the schedule or verbal prompts which indicated the level of autonomy gained by the child. This research concurs with data from the current study. As indicated by Participant 3 *"In terms of achievement... the child definitely achieved a better level of independence... it reduced the number of times I had to let them know what we were completing next"*. Likewise, Participant 4 reported that *"The time that the child was ready for the next lesson independently with the correct book and materials was when I finally felt there was a breakthrough"*. Participant 1 elaborated further stating that *"the achievement of the child in the classroom grew from the schedule with children's development in confidence and independence knowing exactly what's happening in the classroom and feeling again confident to complete an activity or transition."* These responses clearly indicate the positive outcomes of visual schedules for children with ASD.

The study participants indicated that *all children* in their classes benefitted from the use of visual schedules for children with ASD. The use of visual schedules was indicated by all participants as effective in the general organisation and teaching of all children in the classroom. Participant 5, for example, referred to the support of the visual schedule in managing time within lessons, thereby helping the teacher to achieve required goals and objectives. Another participant concurred, stating that visual schedules allowed *"... for better preparation, time management and organisation of my teaching especially for resources and ensuring*

all lessons are completed in a day"(P3). Quill (1995) concurs with the beneficial aspect of the organisational benefits of visuals for teachers. Another benefit for all children was the reduction in the number of behaviours that challenge in the classroom generally. As Participant 3 noted *"The ...challenging behaviour of the child with ASD could be really distracting and occasionally upsetting for the other children in the classroom ... it would take time to settle him when behaviour which was challenging occurred so all children would be majorly off task for moments in the day... with the guidance of the SET teacher we brought in the visual schedule and all children are benefitting from it"*. Two participants felt that better relationships were cultivated when visual schedules were used to reduce behaviours that challenge. This leads to a situation where positive interactions occur with other children and result in the child with SEN or ASD feeling appreciated, accepted and included (Crouch *et al.* 2014). Generally, the findings of this study indicated that the participants had positive perspectives towards the use of visual schedules as an intervention for all children, including those with ASD in the classroom.

In summary, the participants in this study were of the opinion that using visual schedules increased on-task behaviour, reduced or eliminated behaviour that challenges, supported the teaching and learning process and had benefits for all children in the classroom.

Barriers to using visual schedules

It is evident that visual schedules are regarded as a valuable intervention for children with ASD from both the literature studied and from the findings of this research study. However, potential barriers and limitations to using visual schedules in the classroom have been also identified. The lack of *professional development* for teachers and *time constraints and resources* involved in making and teaching visual schedules were two core limitations identified in this study.

All of the participants were concerned about their lack of training in inclusive practices for children with ASD. *"Without the help of my Special Education Teacher, I would not have known the benefits of visual schedules... I do believe you learn from colleagues but there needs to be more teacher training... without it children with ASD will be at a disadvantage"*, Participant 3 stated. Although one participant had attended some form of training previously, she described it as *"insufficient ... in the context of the classroom, ASD is not something you can learn about from a book"* (P6). It was evident that the lack of training impacted on the self-efficacy levels of the teachers to teach in inclusive contexts. Evidence from this research study indicates that the mainstream class teacher participants were more lacking in confidence about their teaching ability in inclusive practices than the special class teacher participants. The *"lack of confidence in my ability"* was noted by Participant 1 while Participant 4 stated that *"I am always worried if I am choosing the right intervention ... with a lack of training I am leaning on previous research and word of mouth from colleagues"*. All participants however

referred to the lack of professional development as a barrier to effectively implementing visual schedules – ‘...*the more courses there are to help teachers to aid our students the better*’ (P6). It was clear that the participants held positive views towards inclusive practices. They reiterated the need for professional development in inclusive practices broadly and in evidence-based practices for children with ASD specifically.

Another barrier to using visual schedules was the *time and resources required* to create and implement them. Most of the participants stated this issue was a factor for them. This supports the findings of Westwood (2013) when he states that teachers face a variety of challenges when creating inclusive environments for children with SEN in their classrooms. Participants in the current study referred to the volume of work that is necessary to create the visual schedule, to specifically teach the intervention and finally to assess if it is working for the child. As Participant 2 noted ‘... *it is imperative that I always put up a visual schedule of the day correctly, taking time out of my day to adapt it and the time spent making sure the children know how to use it, making sure they know what it means overall*’.

Conclusion

This study contributes to the existing evidence base advocating for the use of visual approaches for children with ASD (Hugh *et al.* 2018). The findings indicated that visual schedules are perceived as an important element of teaching and learning programmes by teachers of children with ASD. Using visual schedules during transitions *reduced the incidence of behaviours that challenge* (Cihak and Ayres 2010; Waters *et al.* 2009). Children with ASD were better able to anticipate and predict changes when using visual schedules. Some teachers noted that *on-task behaviour increased*. Another benefit perceived by the teachers in this study was the *reduction of anxiety levels* experienced by children with ASD when using visual schedules. Including a choice element when using a visual schedule was considered to enhance its use. While many children with ASD benefit from individually designed visual schedules specific to their strengths and learning needs, there is evidence to suggest that *using visual schedules on a whole-class basis aids all children’s learning* (Heflin and Alaimo 2007).

The absence or lack of professional development for teachers on teaching and learning approaches for children with ASD emerged as a prominent issue. The study therefore highlighted the *need for high-quality professional development* for all teachers of children with SEN including those with ASD (Lindsay *et al.* 2013; Rose *et al.* 2015). In addition, the development of a *set of practice guidelines for using visual schedules* to support children with ASD would further enhance the development of teacher skills in this area. Specific professional development would serve to increase teacher self-efficacy in the use of visual schedules within the broader context of other evidence-based practices for children with ASD.

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An Exploration of the Facilitators and Barriers to the Use of Therapeutic Intervention in Irish School Psychology Services

Orla Murphy and Fionnuala Tynan

Abstract

The move to change the method of resource allocation for children with different learning needs, by replacing the General Allocation Model, English as Additional Language Support and low incidence support, to a unified allocation for special education support teaching was set out in *Circulars 0013/2017* and *0014/2017* (DES 2017). According to *Circular 0013/2017*, resource allocations are provided to schools based on their profile of needs in ensuring that the given school has a sufficient level of special education teaching support to meet identified learner needs (DES 2017). In the past, Educational Psychologists (EPs) were one group of professionals who provided reports from which a learner's resource hours were determined, under the *Special Education Circular 02/05* (DES 2005). The current resource allocation model reduces demands on EPs to complete statutory assessments. A similar move in Britain showed that this provided an opportunity for EPs to undertake therapeutic work with learners (Atkinson *et al* 2014). The aim of this paper is to explore the current use of, and attitudes to the use of, therapeutic intervention by EPs with children and young people in Ireland. The impact of the current model of resource allocation on broadening the scope of the Irish EP to work therapeutically is also examined.

Using a pragmatic parallel mixed-methods design, qualitative and quantitative data were collected through hard-copied questionnaires which addressed a number of areas including: the role of service policy and ethos on the EP's ability to use therapeutic intervention and the key facilitators and barriers to the use of therapeutic intervention in Irish school psychology services. The sample comprised 32 EPs from three services.

Results show that respondents use a range of therapeutic interventions, through various formats and with different stakeholders. EPs have a strong sense of value for therapeutic intervention. Nonetheless, service policy needs to further support and encourage the EP's sense of autonomy in using therapeutic intervention. Service ethos has been identified as both a facilitator and a barrier to therapeutic practice for Irish EPs.

INTRODUCTION

High rates of suicide, antisocial behaviour and substance misuse reflect the greater mental health difficulties faced by young people today (McGorry, Bates and Birchwood 2013). Ireland is recorded as having the fourth highest suicide rate among young people in Europe (UNICEF 2017). The findings of the *My World Survey 2* (2019) indicate that Irish adolescents and young adults are experiencing significantly higher levels of anxiety and depression than those reported as part of the *My World Survey 1* (2012) (Dooley 2019). Alongside early intervention, emerging adulthood has been deemed the most critical developmental period in terms of need and potential to benefit from investment in mental health (McGorry 2015).

In the Government of Ireland (2006) document *A Vision for Change*, mental health difficulties are described as lying on a continuum, from everyday psychological distress (experienced by most people) to significant mental health disorder (as experienced by a smaller proportion of people). Definitions of mental health in children have recognised the developmental context. One such definition by the Mental Health Foundation (1999) refers to the psychological and emotional development of the child, the ability to initiate, develop and sustain mutually satisfying personal relationships, use and enjoy solitude, learn the skill of empathy towards others, learn from play, the moral development of right and wrong and the resolution of personal difficulties.

It is clear from this definition, that mental health has strong links to wellbeing. Indeed, well-being can be seen as a subset of an individual's mental health. Conceptualising well-being is difficult when multiple definitions focus on its various, yet inter-related, aspects. For the purpose of this paper, reference is made to *AISTEAR: The Early Childhood Curriculum Framework* (National Council for Curriculum and Assessment (NCCA)(2009)) and the *Guidelines for Mental Health Promotion: Well-being in primary schools* (Department of Education and Skills (DES) and Department of Health (DoH)(2015)) in the compilation of one broad definition. As such, well-being may be defined as the optimal development of the child, through quality teaching and learning as well as through the child's relationships and interactions with family and the wider community.

School psychologists (SPs) are believed to be one group of professionals that may be best placed to support the well-being and mental health of children and young people (Atkinson, Bragg, Squires, Muscutt and Wasilewski 2011). The therapeutic roles of the SP and the educational psychologist (EP) are commonly referenced in the literature. It should be noted that the term EP is most commonly used in Ireland and the United Kingdom (UK) and SP is used in the United States of America. A provisional definition of therapeutic intervention highlights an intentional interaction, expecting to achieve a positive outcome for the child or young person, based on their identified needs, and informed by an

understanding of the potential impact and value of the interaction involved (Children Acts Advisory Board 2009). Interventions are deemed appropriate when they are based on the needs of the child or young person (British Psychological Society 2016). Equally, the development of a therapeutic alliance with the child or young person is important for engagement in therapy where empathy, genuineness and unconditional positive regard represent key therapist qualities in developing this alliance or working relationship (*ibid*).

Changes in the Irish educational landscape have placed significant demands on particular EP activities over others. Until recently, special education requirements revolved around individual assessment (Larney 2003; O Farrell and Kinsella 2018). The requirement in *Circular 02/05* (DES 2005) for students to have a diagnosed learning disability, as a precursor to additional supports in the educational system, led to a high level of assessment work for EPs. In essence, in order for students to access additional resources in schools, including resource teaching hours, they were required to have a psychological assessment and report completed by an EP. Winter *et al* (2006) critiqued the former process of diagnosing students for placement into certain categories of disability; the negative expectations associated with a label of disability and the impossibility of inferring a commonality of need for students placed within the same category of disability. The NCSE (2014) review of the system of resource allocation to Irish schools was deemed to be an unfair and inequitable one. Providing the same level of support for students within defined categories of SEN, irrespective of the level of student need, disregarded the notion of heterogeneity within any SEN category (*ibid*).

Historically, Irish teachers showed a preference for a traditional model of service delivery where students were referred to the EP for assessment (Hayes and Stringer 2016). The same regard for the role was not shared by EPs themselves, possibly because such assessment was associated with the identification of deficits (Webster, Maliphant, Feiler, Hoyle and Franey 2003). This in turn led to a stereotype of the EP as an assessor, correlating with notions of the EP as a gatekeeper of resources (Passenger 2013). Overall, the professional identity of EPs is to be questioned here with regard to the psychological function of assessments (Parkinson 2004). Winter *et al* (2006) notes that the process of linking assessment to resources in itself undermines the concept of inclusive education if students require a label in order to be included in school. Nonetheless, the establishment of the General Allocation Model (GAM) (*Circular 02/05*), in meeting the needs of the majority of students with SEN who have learning difficulties, supported the principle of an inclusive education (Deforges and Lindsay, 2010). Reducing the need for individual psychological assessment, schools were provided with additional teaching personnel in providing early intervention for these students through a staged process consisting of assessment, identification and intervention (DES 2005). However such an assessment context has prevented EPs from expanding their role into different areas (Farrell *et al* 2006), including therapeutic work.

MacKay (2000, 2006 and 2007) has been influential in writing about the therapeutic role of the EP, asserting that EPs are a key therapeutic resource for children and young people. With experience working across systems, including schools and families, EPs bring an understanding to therapy that human behaviour is complex. The rise in mental health difficulties among school children (Kutcher and McLuckie 2009; Merikangas *et al* 2010; Trussell 2008) and the strong evidence base for psychological therapy are noted reasons for a renewed emphasis in therapeutic intervention work (MacKay 2007). Alongside this, specialist services including the Child and Adolescent Mental Health Service (CAMHS) possess significant structural difficulties regarding access to and provision of appropriate support for young people with mental health difficulties (McGorry *et al* 2013). Long waiting lists, restricted access for children/young people with severe and complex mental health difficulties, a failure to consider the wider context encompassing such difficulties and a lack of continued access to support from adult services represent major challenges to be overcome (McGorry *et al* 2013; McGorry 2015). These findings highlight a role for Irish EPs to provide early intervention to children and young people with mild mental health needs, leading to the reduction in referrals to CAMHS.

The revised resource model to schools holds pertinent implications for the role of the EP. It enables schools to deploy resources flexibly in line with identified student needs and without the requirement for a diagnosis of disability (NCSE 2014). This may lead to a significant reduction in assessment work conducted by EPs. This in turn should provide EPs with the opportunity to develop their knowledge and skills across a wider range of areas (Farrell *et al* 2006), perhaps with increased time for EPs to deliver therapeutic intervention in Irish schools.

THERAPEUTIC INTERVENTION IN SCHOOLS

Facilitators to Therapeutic Intervention within a School Context

In the Irish context, Hoyne and Cunningham (2018) identified a number of factors that allowed EPs to use therapeutic interventions in schools. Firstly, a school's awareness of the EP role being broader than assessment alone is important. Similarly, school support for the EP to work therapeutically with students facilitates the use of therapeutic interventions as necessary. This can lead to teacher involvement in the therapeutic process where he/she observes therapeutic skills in practice and learns about different strategies. This has increased benefits for the school as teachers get an opportunity to upskill in strategies to support the well-being and mental health of students. It was interesting to note that larger schools who have more access to the EP tended to have EPs who engaged in more therapeutic work than smaller schools. Finally, the integration of the EP in the school structure, with therapeutic intervention being provided at a whole-school level, was another facilitator for therapeutic intervention use by the EP. This inferred the importance of therapeutic work as held by the given school.

In the US, Suldo *et al* (2010) found that collaboration with school personnel providing mental health support to students was also facilitative to therapeutic practice. Not only does this enable the SP reduce their workload by dividing up cases to be seen, it allows SPs to discuss and gain further knowledge on the individual cases with which they work, while providing an opportunity to develop their clinical skills. In the UK, peer support and good quality supervision were viewed as integral to the successful delivery of therapeutic interventions for EPs (Atkinson *et al* 2014; Squires and Dunsmuir 2011). EPs reported supervision to be a positive experience where regard was shown for their therapeutic practice while also providing EPs with the opportunity to flexibly problem-solve around different cases.

Barriers to Therapeutic Intervention within a School Context

In line with the facilitators for therapeutic intervention use by EPs in schools, a number of barriers also emerged from the literature. Hoyne and Cunningham (2018) identified barriers to therapeutic work with students in Ireland which included a lack of awareness in schools that therapeutic intervention is available. However, considering the need to have an assessment of need to ensure extra resources for a student, including those with social-emotional difficulties, this is hardly surprising and highlights one of the deficits of the previous resource allocation model. Here the school needed ‘a diagnosis’ for additional teaching hours for such students, but as a result of assessment work, missed out on learning strategies or possible interventions that could support the given learner, as the EP’s time in any one school is limited. In addition, competing demands on resources, where heavy workloads means there are lots of students to be seen, meant EPs quite simply didn’t have the time to engage in therapeutic interventions. Due to a time allocation model, regardless of whether EPs value the usefulness of such intervention, smaller schools in Ireland had limited access to EP time and hence this posed a very obvious difficulty in the EP working therapeutically with students.

Similar findings emerged from research by Suldo *et al* (2010) in the US. They found that due to a lack of prioritisation of student mental health in line with educational accountability, teachers were reluctant to have students miss class time. This time to engage with therapeutic interventions, as well as having the physical space to conduct the intervention, posed an issue for EPs. In addition, the overlap between services provided by the SP and related personnel within and outside the school context posed a barrier to practice. Premature termination of intervention due to issues such as school calendar equally presented barriers to therapeutic practice for EPs.

In the UK, a lack of appropriate training and limited opportunities to practice also prevent EPs from engaging in therapeutic interventions in schools. Studies show that time pressures placed upon EPs, along with a lack of opportunity to practice therapeutic intervention due to the prioritisation of SEN statutory work

demands over therapeutic practice, continue to be a clear barrier (Atkinson, Corban and Templeton 2011; Greig *et al* 2019). Role Ambiguity also emerged as a distinct barrier to the use of therapeutic interventions in schools and refers to two associated issues. Firstly, EPs report that their traditional role of undertaking educational assessments leads schools to prioritise such competing work demands over the EP's delivery of therapeutic practice. Secondly, EPs comment on the lack of awareness among schools and health-related professionals of their capacity to undertake therapeutic interventions. While health professionals may not acknowledge the role played by EPs as therapeutic providers, some schools prioritised the competing demands of statutory assessment work for EPs over therapeutic intervention work with children (Atkinson *et al* 2014). Onward referral to CAMHS is likely to reflect the EP's lack of capacity to work in mental health intervention (Greig *et al* 2019). Interestingly, EPs in the Hoyne and Cunningham (2018) study expressed their own lack of clarity concerning their role in therapeutic practice in line with the given service policy. This finding furthermore questions the EP's own personal perception of therapeutic intervention and their perceived ability to deliver such work.

Rationale for the Current Study and Research Question

Research into the main facilitators and barriers to the EP's use of therapeutic intervention are well highlighted in the literature. A number of interesting themes were revealed, including the importance of support and supervision, an opportunity to practice in the area of therapeutic intervention and role ambiguity. However, research in this area was mostly limited to a UK context with only one Irish study found, thus highlighting the need for national research on the area. This paper addresses the following research question which emerged in relation to an identified gap in the literature.

What are the facilitators and barriers to the use of therapeutic intervention in Irish School Psychology Services?

METHODOLOGY

Using a pragmatic parallel mixed-methods design, qualitative and quantitative data were collected using a questionnaire. The questionnaire consisted of open and closed questions to explore the use of therapeutic intervention by Irish EPs working across three Irish School Psychology Services (SPSs). The questionnaire used for this study was devised and adapted from the work of Cathy Atkinson, a research and practice-based EP in the UK. It was decided to use and adapt a structured questionnaire to facilitate the collection of high-quality findings and in doing so, avoid the collection of any unambiguous information from EPs. The questionnaire entitled "An Exploration of the Use of Therapeutic Intervention across School Psychology Services in Ireland" consisted of three

sections: respondent information, therapeutic intervention and qualitative information. General participant demographics were gathered as part of the respondent information section. The percentage of time Irish EPs engaged in different traditional activities, including intervention, was also sought in order to explore potential correlations between the EP's general use of intervention and their delivery of therapeutic intervention specifically. In the therapeutic intervention section, types of therapeutic intervention used by EPs were compared with the stakeholders (i.e. individuals with whom therapeutic intervention is used) and manners in which one could use them (i.e. ways in which therapeutic intervention is used). EPs were also asked to note the most and least significant facilitators and barriers to an EP's delivery of therapeutic intervention. The open-ended questions as part of the qualitative information section explored the role of personal beliefs or original psychological training on the EP's interpretation of therapeutic intervention as well as the role of service culture on the EP's ability to use therapeutic intervention.

The questionnaire was first piloted with five EPs working in one particular region in the largest of the three SPSs selected for this study. This region was selected for convenience reasons. EPs were contacted by email and invited to participate in the research, with prior permission to do this from the director of the service. Where they expressed an interest, the questionnaire and consent forms were posted to the EP at their place of work where they completed the questionnaire at their own convenience. No issues emerged with the completion of the questionnaire at this piloting stage, meaning the data generated during the pilot study could be used for subsequent analysis and interpretation.

Sample

In this study, a purposive non-probability sampling method was used to recruit all EPs working across three SPSs in Ireland and using therapeutic intervention. As such, all EPs working in the three services (n=216) were contacted through their professional work email and invited to participate in the research. Thirty-eight EPs initially responded, indicating their interest in the research. Questionnaires and consent forms were subsequently posted to these EPs. A possible sampling bias should be considered here where EPs with a particular interest in therapeutic intervention, currently or historically, were more likely to put themselves forward for this research. A total of 32 hard-copy questionnaires were completed and received by the researcher. This number represented a return rate of 15% from the original sample of 216 EPs invited to partake in the study.

Gender	Age	Domain of psychological training	Years of professional experience	Use of Therapeutic Intervention in the Last 2 Years
Male: 8 (25%)	Range: 30-58 yrs	Educational Psychology: 24 (75%)	< 2: 2 (7%)	Yes: 25 (78%)
Female: 24 (75%)	Mean: 44.65 yrs	Counselling Psychology: 5 (16%)	2-5: 5 (16%)	No: 7 (22%)
-	-	Child Psychology: 2 (6%)	5-10: 6 (19%)	-
-	-	Other: 4 (12%)	10-15: 7 (23%)	-
-	-	-	> 15: 11 (35%)	-

Table 1: Sample Characteristics

Approach to Data Analysis

A chi-square test was conducted to investigate potential correlations between the types of therapeutic intervention used by EPs, the individual stakeholders that EPs utilize intervention with and the formats in which therapeutic intervention is used by EPs.

The facilitators and barriers in the delivery of therapeutic intervention by the Irish EP were analysed using a cluster analysis. EPs were specifically asked to rank order eight facilitators and eight barriers. Equally there was an option of including and ranking personally-identified facilitators and barriers by the EPs themselves. Firstly, median values were obtained regarding the most important facilitators and barriers to the EP's use of therapeutic intervention. Secondly, given the small sample size of 32 EPs, a comparison across services was drawn using a frequency means. Thirdly, a cluster analysis enabled the formation of a number of different EP clusters regarding the key facilitators and barriers to their use of therapeutic intervention.

A thematic analysis following the Braun and Clarke (2006) six key phases (familiarisation with the data, generating initial codes, searching for themes, reviewing potential themes, defining and naming themes, producing the report) was employed to analyse participant responses from open-ended questions. This qualitative data was analysed through the use of codes which led to the identification of over-arching or main themes. Codes were generated according to shared similarities across participant responses in the data sets. Through an inductive and deductive process, codes were generated based on frequency and relevance to the area of interest. With the aim of reducing researcher bias, the researcher kept a reflective diary throughout the coding process which considered expected as well as emerging codes.

RESULTS

Use of Therapeutic Intervention by Irish EPs can be seen in Table 2 below and include the following: Cognitive Behavioural Therapy (CBT), Motivational Interviewing (MI), Solution Focused Brief Therapy (SFBT) and systemic psychotherapy.

Therapeutic Intervention	Number of Irish Psychologists
Cognitive Behavioural Therapy (CBT)	22
Personal Construct Psychology (PCP)	5
Motivational Interviewing (MI)	9
Solution Focused Brief Therapy (SFBT)	16
Video Interactive Guidance (VIG)	0
Systemic Psychotherapy	2
Family Therapy	1
Narrative Therapy	1
Therapeutic Stories	3
Other (This included Incredible Years, Friends for Life, Positive Psychology, Human Rogerian therapy, Acceptance and Commitment Therapy.)	4

Table 2: Therapeutic Intervention Use by Irish Educational Psychologists

Irish EPs used therapeutic interventions with a very wide range of stakeholders. These included children and young people attending primary and secondary school, students attending youth-reach centres, school staff and parents (see Table 3).

Stakeholder	Number of Irish Psychologists
Children/young people attending primary school	14
Children/young people attending secondary school	14
Children/young people attending a special school	1
Young people attending Youth-reach centres	5
Young people attending colleges of further education	2
Young people attending adult education centres	2
Parents	9
School Staff	13
Other key stakeholders	3
Other education providers	2

Table 3: Stakeholders with whom Irish Educational Psychologists use Therapeutic Interventions

Therapeutic interventions were employed in a variety of ways (see Table 4), including through individual therapeutic work, client-centred consultation, systemic work and through assessment work. In terms of assessment work, some EPs see the process of assessment as a way of delivering therapeutic intervention. This is due to the nature of the discussion with the learner in relation to his/her needs and the implementation of a therapeutic relationship in this process.

Manner	Number of Irish Psychologists
Individual therapeutic work	17
Group work	8
Client-centred Consultation	8
Systemicwork (e.g. CPD and supervision of key stakeholders)	14
Assessment work	10
Other	1

Table 4: Manner in which Irish Educational Psychologists use therapeutic intervention

There was a link between the type of therapeutic intervention and the manner in which it was used. CBT was commonly used with secondary-school students and staff through individualised and systemic work. MI was also most commonly used with secondary-school students but tended to be through client-centred consultation and with school staff through systemic work. By contrast, SFBT was most often used with Youth-reach students on an individualised manner. Therapeutic support was frequently delivered to primary-school students through individualised work or assessment, to secondary-school students through individualised work or client-centred consultation with school staff, to parents through the assessment process and to school staff through the assessment process and systemic work.

Facilitators and Barriers to Therapeutic Practice for Irish EPs

As part of a quantitative analysis, Irish EPs were requested to rank order (1-8), facilitators and barriers regarding their use of therapeutic intervention. The eight facilitators provided to EPs were: 1. Access to training, 2. Continuing Professional Development (CPD), 3. Supervision (e.g. specialist, informal supervision), 4. Collaborative working with peers, 5. School and other key stakeholders' value of the role of therapeutic intervention input from educational psychologists, 6. Service ethos regarding the value of delivering therapeutic interventions, 7. Personal interest and 8. Autonomy. The eight barriers provided to EPs were 1. Lack of training, 2. Lack of opportunity to practice, 3. Access to supervision, 4. Other priorities identified by schools and other key stakeholders, 5. Stakeholders failing to identify educational psychologists as therapeutic providers, 6. Service role and ethos, 7. Service capacity and time allocation demands and 8. Personal belief(s) about therapeutic intervention or original psychological training.

A value of four or less was considered a significant facilitator or barrier to the EP's use of therapeutic intervention, given that EPs ranked the factors from one to eight. A value of five or higher was considered a less significant facilitator or barrier. There was an overlap in the findings regarding facilitators and barriers, hence, they will be presented together to reduce repetition. EPs regarded training, CPD access, supervision, service ethos and the stakeholders' value for therapeutic input as important facilitators to their use of therapeutic intervention. A mirroring of results was found in relation to the most important barriers to the EP's practice of therapeutic intervention. Training, service ethos, service capacity to work therapeutically and stakeholders' priorities were found to be the most significant barriers.

For the purposes of interpretation, the facilitators and barriers were furthermore divided into personal and systemic groupings. Personal facilitators included personal interest in therapeutic work, autonomy to work therapeutically, collaborative work with peers, the stakeholder's value and service ethos. Systemic facilitators included training, CPD and supervision. A stakeholders' priorities, the failure of stakeholders to identify EPs as therapeutic providers,

service ethos and service capacity to work therapeutically are all factors which may have a personal impact on the EP. As such, these factors constituted barriers more of a personal nature. Systemic barriers included training, supervision and practice as such factors are generally outside of the EP's control, thus making them systemic in nature.

Autonomy in using therapeutic intervention

An EP's sense of autonomy in using therapeutic intervention was a very evident theme in the EP's qualitative responses. Firstly, a lack of confidence regarding their ability to deliver therapeutic intervention was well documented by many EPs. Secondly, service ethos bears a significant influence on the EP's role in therapeutic intervention. It determines their autonomy to work therapeutically. Thirdly, there needs to be a value of therapeutic intervention in guiding the EP's sense of autonomy to use it. For the purpose of this paper, I will exclusively focus on the sub-theme of "value of therapeutic intervention".

Value of therapeutic intervention

This sub-theme concerns a school's value of therapeutic intervention, the value held by the service and that of the EP. The research found that EPs perceive schools as valuing assessment work: "resources are a big issue" (EP25) and "schools cannot access support without the relevant assessments" (EP25) were some of the comments that reinforce this. Nonetheless, therapeutic intervention work is valued also. Therapeutic delivery through means of group intervention was "welcomed" (EP21) and "highly valued" (EP21) in some schools. This indicates that EPs interested in the area of therapeutic intervention perhaps need to offer such services themselves in order for it to be known, and hence, valued by stakeholders including schools.

Some EPs referred to the lack of value attached to therapeutic work in the service in which they work as "it is not seen as a therapeutic service" (EP28). Services were said not to "encourage or support" (EP14) such work as a significant part of the EP's role. Overall, most EPs demonstrated a clear value for the area of therapeutic intervention. They felt that they are "well-positioned" (EP32) to engage in therapeutic intervention, regarding therapeutic practice as a "universal need" (EP27).

DISCUSSION

Therapeutic Intervention Delivery by Irish EPs

The comprehensive and flexible nature in which therapeutic support is delivered by Irish EPs to various stakeholders and through various formats highlights their level of skill in the area. These findings support international literature which found that therapeutic approaches are delivered by EPs through a range of activities, including direct therapeutic work with children and young people, group work, the assessment process, consultation, work through other stakeholders and systemic work (Atkinson *et al* 2012).

Assessment and client-centred consultation work with students, staff and parents was a common thread in the findings. While it remains unclear as to the nature of such work at times, it appears that EPs interpret assessment and consultation to be part of a therapeutic process by which they can engage with students and key agents of change. A consultation is a forum for change through purposeful conversation (Dickinson 2000) whereby assessment may be part of the consultation process and consultation is an essential part of assessment (NEPS 2016). In one-off sessions, EPs assist students gain an understanding of their difficulties, support parents and teachers make behavioural changes in promoting student change and equip them with education and specific skills to support such change. In comparison to a therapeutic intervention which involves a structured piece of intervention work and which is implemented over a number of sessions and evaluated carefully, EP consultations may be considered therapeutic in nature as there is an intention of making a difference in the interaction, which is based on the identified needs of the given student (Children Acts Advisory Board 2009). Serving as a universal intervention with teachers and parents, consultation is designed to promote the mental health needs of all students while preventing the emergence of related difficulties (Shernoff, Bearman and Kratochwill 2017). It also significantly reduces the number of referrals for more intensive services in relation to students at risk of mental health difficulties (*ibid*). This is an important finding in assisting EPs to challenge the notion that their capacity to deliver therapeutic intervention is underpinned by many factors, and most significantly, the EP's lack of time and pressure from other demands placed upon them by their service. The issue of time constraints was a notable barrier to the EP's provision of therapeutic services in other jurisdictions (Greig *et al* 2019).

Irish EP's Sense of Autonomy in Working Therapeutically

Autonomy represents one of three inherent psychological needs in achieving a sense of self-determination (Deci and Ryan 2000). It is the need to be an initiator over one's behaviour (Porter 2006). Some EPs in this research emphasised a lack of confidence regarding their role in therapeutic practice. Internationally, the EP's recognition of the distinctive skills and knowledge that CAMHS brings to therapeutic delivery, a service providing therapeutic support for acute mental health difficulties, has prompted them to make referrals for children and young people (Greig *et al* 2019). Nonetheless, national findings from a published HSE report (2017) describe staffing decreases and the admission of children to acute adult inpatient units as having a detrimental impact on the delivery of effective mental health services for children and young people. It has become all the more important for Irish EPs to be able to play an early intervention role in the prevention of serious mental health difficulties in children and young people. Given their flexible delivery of therapeutic intervention, Irish EPs have illustrated that therapeutic input can be provided beyond direct individualised intervention with a child or young person.

A potential correlation between the EP's sense of uncertainty in working therapeutically and the pre-dominance of assessment work in Irish schools undoubtedly must be considered. Internationally, several survey studies have found that SPs spend the majority of their time working in the area of special education eligibility (Hosp and Reschly 2002; Jimerson and Oakland, 2007; Lewis *et al* 2008). The mediating factor of value of therapeutic intervention as held by different stakeholders is critical here and specifically the value of therapeutic practice as held by schools. In this research, the value of therapeutic intervention work was an important personal facilitator to the EP's work. Value was an emerging sub-theme in the EPs' commentary also, where EPs were found to hold a high regard for therapeutic intervention. While an assessment model of practice may predict the lack of value placed on therapeutic intervention by schools, an example of positive feedback was provided in this research where group therapeutic intervention was well received by schools. This finding was also echoed in the literature where many schools value expertise offered by EPs in the area of mental health intervention (Greig *et al* 2019). Once again, this finding highlights that EPs interested in therapeutic practice need to offer such services and in doing so, increase the value placed on it by stakeholders, including schools.

Role of Service Ethos on Therapeutic Practice

The role of service ethos was also established as a crucial determinant of the EP's engagement in therapeutic practice in this research. It was viewed as an important personal facilitator as well as an important personal barrier to the EP's therapeutic practice. The significance of service ethos was highlighted in the fact that sometimes, it did not support EPs to practice therapeutic intervention. In previous Irish literature, individualised therapeutic work by EPs was reported as generally short-term only due to its intensive nature (Hoynes and Cunningham 2018). Related to this is the fact that teachers lack the awareness that EPs are therapeutic providers. Implications arising from such views were found in the literature where teachers were unsupportive of the SP's use of counselling with students in schools (Suldo *et al* 2010).

Irish EP's Role in Therapeutic Intervention and Student Well-being

Irish EPs possess a personal value for therapeutic practice. Many hold a strong value of therapeutic work and believe they are capable of its delivery, whereas it appears that services do not always value the EP's engagement in therapeutic work. EPs have an early-intervention role to play in schools, in the prevention of more acute mental health difficulties, reducing the number of CAMHS referrals. EPs are believed to be professionals most thoroughly embedded within the education system (MacKay 2006); they possess experience of systemic work with schools and families and bring an understanding that human behaviour is complex and the environment plays a role in supporting positive mental health. In 2018, the DES produced the latest circulars (0042/2018 & 0043/2018) as part of the *Wellbeing Policy Statement and Framework for Practice* and in support of student well-being promotion. Building on existing practice in the

area, the circulars recommend that teachers work alongside external facilitators in achieving a holistic approach to student well-being. In Ireland, the work of SPSs aligns closely with DES directives in bringing policies into practice. Through collaborative work with schools, EPs are in a prime position to support learners with emotional and behavioural difficulties within a school context, maintaining a role in preventative practice (Atkinson *et al* 2011). Irrespective of the service's value of therapeutic intervention, they need to provide greater autonomy to EPs to work in the area, increasing the stakeholder's value of it.

The mental health impact arising from the Covid-19 pandemic will certainly create many difficulties for health care systems worldwide. In Ireland, a preliminary analysis of the current crisis forecasts that many of the psychological features associated with the pandemic, including economic uncertainty, health and safety measures forced upon individuals alongside an already limited mental health care system, will all result in the longest and the greatest challenge for our national health system (O'Connor, Wrigley, Jennings, Hill and Niazi 2020). While primary and community care intervention will meet the needs of some, specialist mental health intervention at a secondary care level will be required for a significant proportion of our society including our young people. Undoubtedly, the use of information technology and online platforms in maintaining one's personal and professional lives has been a surprising yet positive outcome of the Covid-19 pandemic. This new digital era holds promise for EPs to offer online psycho-social support to young people by creating mental health interventions and modifying in accordance with the needs of the given person (O'Connor *et al* 2020). It is envisaged that those with both established and emerging mental health needs will require therapeutic intervention.

CONCLUSION

The aim of this paper was to explore the current use of, and attitudes to the use of, therapeutic intervention by EPs with children and young people in Ireland. The impact of the current model of resource allocation on broadening the scope of the Irish EP to work therapeutically was also examined. Results revealed that Irish EPs use a range of therapeutic interventions, through various formats and with different stakeholders. EPs have a strong sense of value for therapeutic intervention. Nonetheless, service policy needs to further support and encourage the EP's sense of autonomy in using therapeutic intervention. Service ethos has been identified as both a facilitator and a barrier to therapeutic practice for Irish EPs.

Service policy needs to be explicit about therapeutic practice, if EPs are to feel confident in providing such services. Some EPs believed that service policy failed to support their therapeutic work, possibly due to other priorities in schools, such as assessment work. As highlighted in the literature (Shernoff *et al* 2017),

consultation practice with its preventative focus, is one way of enabling Irish EPs to broaden their use of therapeutic support beyond direct work with a few students. EPs in this research currently employ therapeutic intervention through client-centred consultation in secondary schools with staff, as a means of discussing student difficulties. With revised policy changes to assessing students for additional educational resources in Irish schools (*Circulars 0013/2017* and *0014/2017*, DES 2017) the focus of the EPs' work may shift from assessment and in the direction of increased therapeutic practice at various levels, with a particular emphasis on preventative work with key stakeholders through consultative work.

The promotion of student well-being constitutes a national educational focus for Irish schools in the imminent future. A shared role for schools and EPs is envisaged in this regard. In 2018, the DES published *Circular 0042/2018* and *Circular 0043/2018*, with regard to the *Wellbeing Policy Statement and Framework for Practice*. It requires all primary and post-primary schools to have implemented and reviewed a well-being process to promote student well-being, originally by 2023 which has since been extended until 2025 due to the Covid-19 crisis. Internationally, teachers have been credited for their competence in responding to student mental health needs, through their early recognition of related difficulties (Atkinson *et al* 2011; DfEE 2001). In essence, EPs need to support teachers in meeting the well-being and mental health needs of Irish children and young people. External facilitation of the well-being process is a feature of this framework and is one that is recommended in supporting a holistic approach to student well-being. EPs represent suitable facilitators, given their understanding of the school structure and appropriate qualifications to deliver well-being education to students (DES 2018). In other words, EPs may work collaboratively with schools in providing universal and targeted support at tiers one and two respectively, in the prevention of mental health difficulties. Of course, direct individualised intervention at tier three for specific cases (NEPS 2010a), will comprise another important component of the EP's role for a minority of students that may require this level of support. Such collaboration between EPs and school personnel may prevent some children and young people from having to engage with CAMHS, thus enabling the service to work with those in most need. Certainly, a follow-up study in Ireland would be an interesting undertaking in a few years, given the introduction of recent policy changes in relation to resource allocation in schools as well as the national focus on student well-being. Equally, the role of the Irish EP in offering online mental health intervention to young people, as a result of the Covid19 pandemic, needs to be monitored in light of growing needs and as part of an evolving global situation.

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The Collaborative and Proactive Solutions (CPS) Model as an Effective Intervention for Youth who Present with Behaviour that Challenges: A Review

Edel Higgins

Abstract

The link between behavioural issues in youth and adversity in later life has been well documented. Targeted intervention programs for behaviourally challenging young people are needed to prevent life-long and persistent social and emotional problems and chronic mental health concerns. Collaborative and Proactive Solutions (CPS) (Greene, 2014) is one such intervention. A systematic review was conducted to evaluate the quality and findings of studies that investigated the CPS approach in home and school settings. Seven studies involving 1,037 young people (aged <18 years) with a range of behavioural difficulties were evaluated. Preliminary evidence concludes that CPS is a promising intervention for understanding and helping youth who present with behaviour that challenges. However, the absence of experimental study design in the majority of studies and significant methodological limitations adds caution to the interpretation of conclusions.

These findings are discussed in terms of the implication for education and educational psychology practice.

Key words: Collaborative and Proactive Solutions, behaviour intervention, behavioural issues

Introduction

Significant challenging behaviour has a profound impact on educational outcomes and quality of life. Behaviour that challenges has been defined as any behaviour that interferes with optimal learning or social interactions (Smith and Fox, 2003). Young children who present with behaviour that challenges are particularly concerning as research has consistently found that, without focused intervention, these behaviours are unlikely to improve as the child gets older (Powell, Fixsen, Dunlap and Smith, 2007). Therefore, children presenting with behavioural difficulties in early childhood are more at risk of future school disengagement, antisocial behaviour, delinquency, psychopathology, convictions of serious and violent offences, substance abuse, social isolation, maladjustment, poor adult relationships later in life and suicide (Bywater, 2012; Colman *et al.* 2009; Nock *et al.* 2008). Furthermore, the association between severe

behavioural issues and school achievement has been well documented. Children who present with significant social, emotional and behavioural needs are at an increased risk for school failure and early school drop-out, peer exclusion, underemployment, decreased income, and social welfare dependence (Breslau *et al.* 2008; Christle, Jolivette and Nelson, 2007; Hoza *et al.* 2005; McLeod and Kaiser, 2004). Consequently, academic under-achievement has been found to be strongly associated with risk for a variety of internalising responses such as anxiety and depression and externalising behaviours such as challenging behaviour in school, conduct conditions, increased likelihood of criminal activity, psychopathy and substance abuse (Barrowman, Nutbeam and Tresidder, 2001; Hemphala and Hodgins, 2014; Henry, Knight and Thornberry, 2012; Liu, Chen and Lewis, 2011). Conversely, positive school achievements have been shown to protect against emotional and behavioural difficulties (Smith, 2006), as well as being associated with the resolution of such difficulties in school-aged children (Cooper and Tuknaz, 2007).

The development and maintenance of behaviour that challenges in school-aged children is complex and multifaceted. Factors which have been found to contribute to behaviour that challenges include: social skill difficulties (Purvis, McNeill and Sutherland, 2014), psychiatric and psychological disorders and symptomology (Hemmings *et al.* 2006), physical illness (Carrand Smith, 1995) communication difficulties (Nemeth and Brillante, 2011; Purvis *et al.* 2014), academic difficulties (Purvis *et al.* 2014) and ineffective classroom management strategies (Westling, 2010). Behavioural issues are often caused by a complex interplay of some or all of these factors (Koristsas and Iacono, 2012).

Teachers have consistently reported management of behavioural issues as one of the most important, yet demanding, aspects of teaching (Coffee and Kratochwill, 2013; Reinke *et al.* 2011). Many teachers feel unprepared and have reported a lack of knowledge and professional development in evidence-based interventions and practices which are effective in ameliorating behavioural issues within the classroom (Coffee and Kratochwill, 2013; Reinke *et al.* 2011). Research has shown that challenging behaviours within the classroom can impact negatively upon the entire classroom climate causing student distraction and disengagement, a low level of productivity and an increased level of frustration (Farah, 2017; Robers *et al.* 2012). Irish schools are encouraged to use a continuum of support when responding to the behavioural, emotional and social needs of their students (National Educational Psychology Service, NEPS, 2010). Therefore, support and interventions are incremental and move from classroom-based interventions to more intensive and individualised interventions as appropriate. While the use of evidence-based universal classroom management practices have been found to be effective in supporting a teacher's classroom management, some students need additional individualised behavioural supports (Reinke *et al.* 2011).

School-based interventions to support the management of behaviour that challenges

Use of evidence-based interventions requires schools to draw on well-researched approaches that have been proven to improve student outcomes. Individual behavioural and cognitive-behavioural approaches to dealing with behavioural issues stand out in the literature as the most strongly supported in schools (Cooper and Jacobs, 2011).

Many approaches to the intervention and management of behavioural issues have been rooted in behavioural psychology (Armstrong *et al.* 2014). Examples of these approaches frequently found in school settings include token economies, proximity praise, planned ignoring, time out and cost contingency (NEPS, 2010). A substantial amount of empirical research supports behavioural methods to increase student compliance (Eyberg, Nelson and Boggs, 2008). In contrast, conflicting research has questioned teachers' behaviourist approaches when dealing with student misbehaviour. Sullivan *et al.* (2014) found that many teachers use behaviourist approaches ineffectively, as they do not facilitate engagement with the student or address the underlying causes of the behaviour. Similarly Osher *et al.* (2010), found that schools often respond to behaviourally challenging students with behaviourist exclusionary and punitive approaches that have limited value, as they fail to consider the transactional nature of behaviour and the multiple factors that affect student discipline.

Cognitive-behavioural approaches to behaviour management in schools are becoming more recognised as a sustainable, evidence-based approach (Dunsmuir and Iyadurai, 2007). Using cognitive behavioural approaches, teachers can help their students control their own behaviour, rather than attempting to control student behaviour with external reinforcement alone (Cooper and Jacobs, 2011). Cognitive-behavioural interventions usually involve helping the student to develop self-awareness, self-guidance, self-monitoring, self-reinforcement and strategic problem-solving skills and, ultimately, help the student 'how-to-think' rather than 'what-to-think' (Cooper and Jacobs, 2011; Stallard, 2002; Toland and Boyle, 2008). Research undertaken in Ireland has shown that cognitive-behavioural approaches to behaviour management in schools can be both a time-efficient and effective way of working with pupils who engage in challenging behaviour (Ruttledge and Petrides, 2012). Recent research has also shown that teacher coaching focused on the implementation of cognitive-behavioural approaches to behaviour management in schools resulted in an improvement in student behaviour (Brock and Beaman-Diglia, 2018).

The importance of effective classroom management systems (Brown, 2013) and student-teacher relationships (Tanase, 2019) have also been found to be effective in ameliorating challenging behaviours within the classroom. Such relationships were formed by teachers by creating a positive classroom environment, having private conversations with the students, engaging in ongoing dialogue with parents and showing students that they care (Tanase, 2019).

Collaborative and Proactive Solutions (CPS)

Collaborative and Proactive Solutions (CPS), originally known as Collaborative Problem Solving (Greene, 2014) is a conceptual and therapeutic family-based cognitive-behavioural model of intervention that focuses on facilitating parents and children to collaboratively and proactively solve problems that contribute to behavioural issues. The authors claim that this non-punitive and non-adversarial model decreases the likelihood of conflict, enhances relationships, improves communication and helps children and adults learn the skills of empathy, taking another's perspective, understanding how one's behaviour is affecting others, conflict resolution without disagreement and honesty (Lives in Balance. (n.d.) Retrieved January 31, 2017 from <http://www.livesinthebalance.org/about-lives-in-the-balance>).

The CPS model views behaviour that challenges as a result of 'lacking cognitive skills' i.e. executive skills, language processing and communication skills, emotion regulation skills, cognitive flexibility skills and social perception skills rather than as a result of, for example, poor motivation, attention seeking, limit testing, parenting etc. The authors of the model claim that if a child has insufficiently developed skills, behavioural issues will occur when the demands of the environment exceed the child's capacity to respond adaptively (Greene, 2014). CPS focuses on working collaboratively with the person displaying behavioural issues to improve these skills rather than increasing motivation to comply by means of external reinforcement. The notion that 'Children do well if they want to' (Greene, 2014) which underlies behavioural approaches involving external rewards and sanctions, changes to 'Children do well when they can' (Greene, 2014) which is the fundamental philosophy of CPS. The first step of the CPS model is to identify the underdeveloped skills and unresolved problems the child may be experiencing. Once these skills are identified, a supportive adult attempts to problem-solve collaboratively and proactively with the child. To do this, the adult begins by gathering information in a neutral and non-defensive manner in order to achieve the clearest possible understanding of the child's concern or perspective on a given unsolved problem. At this point the adult's concern or perspective is also presented. When both the child's and adult's concerns are clear, they brainstorm solutions together that are realistic and mutually satisfactory. The intervention ends with an agreement to problem-solve alternative solutions if the chosen solution fails (Lives in Balance. (n.d.) Retrieved June 30, 2017 from <http://www.livesinthebalance.org/about-lives-in-the-balance>).

This review aims to provide a detailed account of the CPS approach to managing behaviour that challenges by systematically and critically evaluating the relevant research. Findings will be synthesised to provide a balanced overview of findings so that implications for educational psychology practice can be discussed.

Systematic literature search

The online databases of PsychInfo, PsychArticles, Science Direct, Scopus and Medline were searched concurrently for entries containing any combination of the following terms: “collaborative and proactive solutions” OR “collaborative problem solving” AND “behaviour” OR “behavior”. The search was confined to English language full text journal articles. The search was not limited to a specific time period. The last search was run on 14th April 2017. The initial literature search resulted in 782 citations.

Titles and abstracts of identified articles were subsequently screened for relevance to topic and this resulted in the identification of 21 full text articles which were subsequently screened for the inclusion criteria outlined in Table 1. The references sections of identified articles were also screened for relevance and additional papers were identified. Overall, seven studies met the inclusion criteria. See Figure 1 for a flowchart diagram of the literature screening process. A list of the seven identified articles can be found in Table 2.

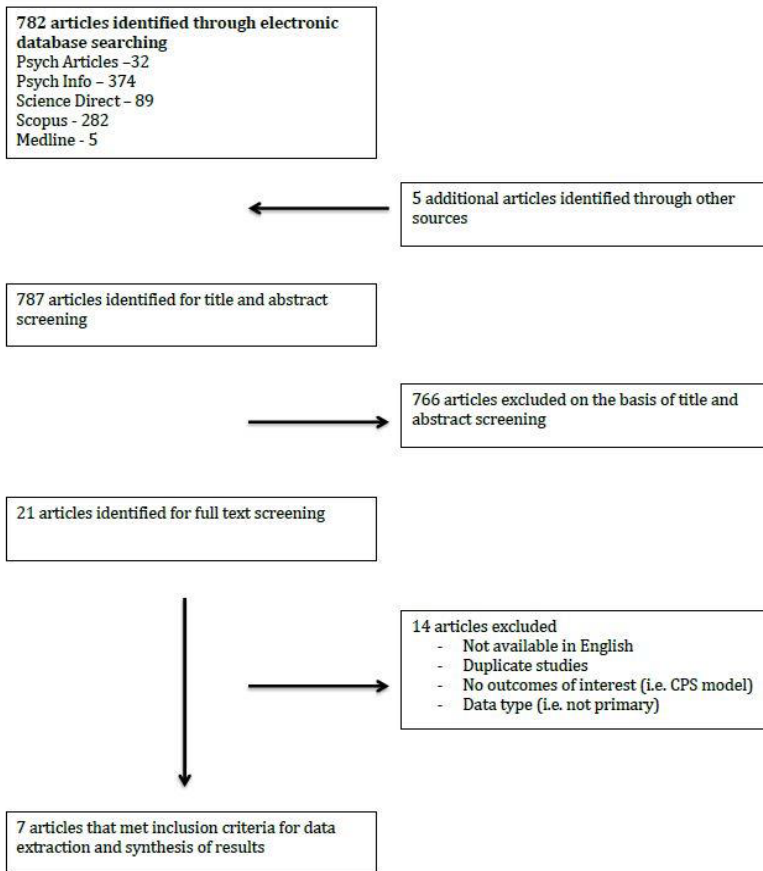


Figure 1: Flowchart Diagram of the Literature Screening Process

	Inclusion Criteria	Exclusion Criteria
Publication Type	Published in a peer-reviewed English language journal.	Not published in a peer-reviewed journal.
Type of Data	Original, data based and not a review of the literature	Secondary data
Sample	Children and adolescents aged ≤ 18 years who present with behavioural issues	Participants aged ≥ 19 years and participants who do present with behavioural issues
Dependent variables	The study included the direct assessment of the effectiveness of the CPS model within the sample population.	The study did not include the direct assessment of the CPS model within the sample population.

Table 1: List of Inclusion and Exclusion Criteria

Included Studies

- Epstein, T., Saltzman-Benaiah, J. and On, R. H. (2010) 'Parenting children with disruptive behaviours: Evaluation of a collaborative problem solving pilot program', *Journal of Clinical Psychology Practice*, 2010(1), 27–40.
- Greene, R. W., Ablon, J. S., Goring, J. C., Raezer-Blakely, L., Markey, J., Monuteaux, M. C., Henin, A., Edwards, G. and Rabbitt, S. (2004) 'Effectiveness of Collaborative Problem Solving in Affectively Dysregulated Children With Oppositional-Defiant Disorder: Initial Findings', *Journal of Consulting and Clinical Psychology*, 72(6), 1157–1164.
- Johnson, M., Ostlund, S., Fransson, G., Landgren, M., Nasic, S., Kadesjö, B. and Fernell, E. (2012) 'Attention-deficit/hyperactivity disorder with oppositional defiant disorder in Swedish children - an open study of collaborative problem solving', *Acta Paediatrica (Oslo, Norway: 1992)*, 101, 624–30.
- Martin, A., Krieg, H., Esposito, F., Stubbe, D. and Cardona, L. (2008) 'Reduction of Restraint and Seclusion Through Collaborative Problem Solving: A Five-Year Prospective Inpatient Study', *Psychiatric Services*, 59(12), 1406–1412.
- Ollendick, T. H., Greene, R. W., Austin, K. E., Fraire, M. G., Halldorsdottir, T., Allen, K. B., Jarrett, M.A., Lewis, K.M., Smith, M., Cunningham, N.R., Noguchi, R.J.P., Canavera, K. and Wolff, J. C. (2015) 'Parent Management Training and Collaborative and Proactive Solutions: A Randomized Control Trial for Oppositional Youth', *Journal of Clinical Child and Adolescent Psychology*, 4416(April), 1–14.
- Schaubman, A., Stetson, E. and Plog, A. (2011) 'Reducing Teacher Stress by Implementing Collaborative Problem Solving in a School Setting', *School Social Work Journal*, 35(2), 72–93.
- Stetson, E. A. and Plog, A. E. (2016) 'Collaborative Problem Solving in Schools: Results of a Year-Long Consultation Project', *School Social Work Journal*, 40(2), 17–36.

Table 2: List of Included Studies

Comparison of selected studies

To determine each study's contribution to answering the review question, the Weight of Evidence Framework by Gough (2007) was used to allow systematic judgements about the value of each study in answering the review question. The framework examines three aspects of a study: Quality of Methodology, Relevance of Methodology and Relevance of Evidence to the Review Question. An average of these weightings is taken to establish the study's overall Weight of Evidence. Table 3 presents the Weight of Evidence awarded to each of the studies included for review.

Studies	(A) Quality of Methodology	(B) Relevance of Methodology	(C) Relevance of evidence to the review question	(D) Overall Weight of Evidence
Epstein et al. (2010)	1.3	1	2	1.44
				Low
Greene et al. (2004)	2.7	3	3	2.9
				High
Johnson et al. (2012)	1.3	1	3	1.7
				Medium
Martin et al. (2008)	0.6	1	3	1.9
				Medium
Ollendick et al. (2015)	2.7	3	3	2.9
				High
Schaubman et al. (2011)	0.6	1	3	1.5
				Medium
Stetson and Plog (2016)	1.7	1	3	1.9
				Medium

Table 3: Weight of Evidence Awarded to each of the Included Studies

Critical Review

This review synthesised the results of seven randomised controlled trials which aimed to evaluate the quality and findings of studies that investigated the CPS approach in home and school settings.

Participants Characteristics and Setting Descriptions

The studies were carried out in the U.S. (Greene *et al.* 2004; Martin *et al.* 2008; Ollendick *et al.* 2015; Schaubman *et al.* 2011; Stetson and Plog, 2016), Canada (Epstein and Saltzman-Benaiah, 2010) and Sweden (Johnson *et al.* 2012). Participants in six of the seven included studies ranged in age from three to 16 years. Schaubman *et al.* (2011) did not include the ages of their participants but reported that all participants were 7th and 8th grade students (typically 12-13

years old). Males were over-represented (57-89.9%) in the six studies that provided a gender breakdown (Epstein and Saltzman-Benaiah, 2010; Greene *et al.* 2004; Johnson *et al.* 2012; Martin *et al.* 2008; Ollendick *et al.* 2015; Stetson and Plog, 2016). Two studies detailed that all participants had an IQ of 80 and above (Epstein and Saltzman-Benaiah, 2010; Greene *et al.* 2004). Participant ethnicity was detailed in four of the studies (Greene *et al.* 2004; Martin *et al.* 2008; Ollendick *et al.* 2015; Stetson and Plog, 2016). Participants in these four studies were primarily Caucasian (52-89%). Some diversity among participants was evident with 9-25% African-American, 6-23% Hispanic/Latino and 1% Asian-American participants included in the studies. As participants were predominately male Caucasian, this homogeneity limits the generalisability of the findings to a broader, more diverse population. Only one of the seven studies met the Kratochwill (2003) criteria for sufficient sample size (Martin *et al.* 2008), however poor methodological quality reduces the reliability of the findings. Insufficient sample sizes across the majority of studies prevent precise and accurate conclusions to be made.

Eligibility criteria and the participant selection process varied considerably among studies. Recruitment of children and parents was based upon referral by mental health professionals (Epstein and Saltzman-Benaiah, 2010; Greene *et al.* 2004; Martin *et al.* 2008; Ollendick *et al.* 2015), schools (Johnson *et al.* 2012; Ollendick *et al.* 2015; Schaubman *et al.* 2011; Stetson and Plog, 2016) and parents' requests (Ollendick *et al.* 2015). While all referred participants had reported behavioural difficulties, the specific nature of these behavioural difficulties varied considerably between studies. The studies by Greene *et al.* (2004) and Ollendick *et al.* (2015) focused on the impact of the CPS model on children with Oppositional Defiant Disorder (ODD) and consequently all participants recruited met full diagnostic criteria for ODD. Participants in the Ollendick *et al.* (2015) study also met diagnostic criteria for at least one comorbid mental health disorder. Johnson *et al.* (2012) recruited participants who met diagnostic criteria for both ODD and ADHD according to the Diagnostic and Statistical Manual of Mental Disorders, Fourth edition (DSM-IV, APA, 2000) criteria. Epstein and Saltzman-Benaiah, (2010) recruited all participants from the Tourette Syndrome Neurodevelopmental Clinic in Toronto and consequently each participant met criteria for Tourette Syndrome. Participants in this study also met diagnostic criteria for ODD and ADHD based on the diagnostic criteria as set out in DSM-III-R. Participants in the Martin *et al.* (2008) study were all recruited from a psychiatric inpatient unit and all had primary diagnosis of: Major depressive disorder (41%), Adjustment disorder (24%), Bipolar disorder (24%), Psychosis (24%), Anxiety disorder (7%), Hyperactivity disorder (3%) or other (15%). Schaubman *et al.* (2011) and Stetson and Plog, (2016) recruited participants from alternative school units for children with significant social, emotional and behavioural needs and all had reported (but unspecified) mental health diagnoses. Four studies reported information on pharmacological treatment during the intervention (Epstein and Saltzman-Benaiah, 2010; Greene *et al.* 2004; Johnson *et al.* 2012; Ollendick *et*

al. 2015). All studies reported that participants who were taking medication remained on existing pharmacological regimes upon entry to the study. The Greene *et al.* (2004) study was the only one to provide specific information about medication use and changes throughout and after the intervention. Considering the variability in participant characteristics and small sample sizes, caution must be applied when interpreting findings.

Study Design

The majority of studies used a single group, pre-post-test design. These prospective trials used a baseline measure, intervention and post-test with a single group of participants (with each participant acting as their own control) to evaluate causal relationships between the CPS intervention and outcome measures (Epstein and Saltzman-Benaiah, 2010; Johnson *et al.* 2012; Schaubman *et al.* 2001; Stetson and Plog, 2016). Martin *et al.* (2008) used a prospective cohort study design to examine usage patterns of restraint and seclusion before and after the implementation of the CPS model. The lack of experimental or quasi-experimental designs in these studies contribute to the lower ratings given for quality and relevance of methodology. Two of the studies used a randomised controlled trial (RCT) design, randomly assigning participants to conditions (Greene *et al.* 2004; Ollendick *et al.* 2015) and so received the highest ratings of evidence for ‘methodological relevance’. In one study, participants were randomly assigned to either the CPS intervention or a manualised parent training programme (Greene *et al.* 2004). In the other study, participants were randomly assigned to either the CPS intervention, Parent Management Training or a wait list control (WLC) condition (Ollendick *et al.* 2015). Due to insufficient sample size, Ollendick *et al.* (2015) made the decision to drop the WLC condition group and WLC families were randomised to one of the other active intervention groups. While using RCT strengthens the validity of overall findings in these two higher weighted studies, it is important to bear in mind that when interpreting findings from small sample sizes, caution must be applied.

Outcome Measures

A wide range of measures were used to examine the various outcomes and specifically analyse behavioural change in participants. Ollendick *et al.* (2015) used measures of strong psychometric properties and multiple methods from multiple sources and was the only study to be awarded a high weighting of evidence for ‘measurements’. Ollendick *et al.* (2015) gathered information from clinicians through semi-structured interview using the *Anxiety Disorders Interview Schedule for DSM-IV* child and parent versions (ADIS-C/P; Silverman and Albano, 1996) and the *Clinical Global Impression Scale* (CGI) (National Institute of Mental Health, 1985) at pre-intervention, post-intervention and 6 month follow-up. The ADIS-C/P was used to identify diagnostic criteria and to develop a clinical severity rating by gathering data regarding intensity, frequency and interference of behaviours. The CGI was used in an attempt to determine the degree to which the participating children and adolescents’ symptoms

improved since the beginning of the CPS intervention. The *Disruptive Behaviours Disorders Rating Scale* (Barkley, 1997) and *Behaviour Assessment System for Children – Second Edition* (BASC; Reynolds and Kamphaus, 1992) were completed by parents at pre-intervention, post-intervention and six-month follow-up in order to identify a variety of emotional and behavioural difficulties and symptoms of ADHD, ODD and Conduct Disorder. In order to rate parents' satisfaction with, and efficacy of, the CPS intervention, the authors designed the *Parent Consumer Satisfaction Questionnaire* which was completed by parents at post-intervention and six-month follow-up.

The majority of studies were awarded a medium weighting of evidence as multiple methods (Epstein *et al.* 2010; Greene *et al.* 2004; Johnson *et al.* 2012; Stetson and Plog, 2016) and/or multiple sources (Greene *et al.* 2004; Johnson *et al.* 2012; Stetson and Plog, 2016) were used. All of these medium-weighted studies used measures that are well-referenced and standardised with strong psychometric properties (Epstein *et al.*, 2010; Greene *et al.* 2004; Johnson *et al.* 2012; Stetson and Plog, 2016).

Epstein *et al.* (2010) collected data from parents at four time points: baseline, pre-intervention, post-intervention and at two-month follow-up using the *Eyberg Child Behaviour Inventory* (Eyberg, 1999), *Social Competence Scale* (Conduct Problem Prevention Research Group, 1995) and *Parent Stress Index* (PSI, Abidin, 1995). Parents were also asked to complete the *Oppositional Defiant Disorder Rating Scale* (ODDRS) (Green, 2004) to inform ratings by independent raters on the *CGI* (National Institute of Mental Health, 1985). This was an attempt to provide a clinician's view of the severity of the child's psychopathology prior to and after completing the CPS intervention and overall improvement from the initiation of the intervention.

Greene *et al.* (2004) collected data from parents using the *Parent Child Relationship Inventory* (PCRI, Gerard, 1994), *PSI* (Abidin, 1995) and *ODDRS* (Greene *et al.* 2004) pre- and post- intervention. A clinician involved in the research completed the *CGI* (National Institute of Mental Health, 1985) in order to determine the degree to which each child's behaviour improved following the intervention period.

Johnson *et al.* (2012) gathered data from parents at baseline, post-intervention and six-month follow-up using *Swanson, Nolan, and Pelham-IV* (SNAP-IV) (Swanson, 1992) Questionnaire, *Conners Behaviour Rating Scales* (Conners, 1969) and *Family Burden of Illness Scale* (Riley *et al.* 2006). The *CGI* (National Institute of Mental Health, 1985) was completed by an investigator that was not involved in the intervention process.

Stetson and Plog (2016) collected data from parents using the *PSI* (Abidin, 1995) and *Social Skills Improvement System Rating Scales* (SSIS, Gresham and Elliot, 2008), pre- and post-intervention. Teachers completed the *Index of*

Teacher Stress (ITS, Abidin *et al.* 2004) and *SSIS* (Gresham and Elliot, 2008). Students similarly completed the *SSIS* (Gresham and Elliot, 2008) while also completing the *Behaviour Rating Inventory of Executive Function* (BRIEF, Guy, Isquith and Gioia, 2004). A CPS staff survey was developed by CPS consultants involved in the project and included questions on ease of understanding of the CPS model, confidence in implementing CPS, perceived student improvement and changes in level of stress in the classroom and this was administered to students who completed the intervention.

Schaubaum *et al.* (2011) received a low weighting of evidence for measures used as they used only one standardised measure and gathered information from only one source (participants' teachers). Teachers in this study were asked to complete *ITS* (Abidin *et al.* 2004) at baseline and post-intervention. Discipline referral data from the participating school was also collected for each student participant. The Martin *et al.* (2008) study could not be awarded any weighting of evidence as it lacked both multi-method and multi-source data collection, resulting in a single dimension conceptualisation of outcomes.

Intervention

As specified in the inclusion criteria, the CPS approach had to be incorporated into the intervention in all studies and so all studies received ratings of either 2 or 3 for 'relevance of evidence to the review question'. Differences in how ratings were determined were based upon how the CPS intervention was delivered. Given the complex and heterogeneous parent and child characteristics thought to contribute to behaviour that challenges, the authors of the CPS model endorse the individualisation of treatment. Furthermore, they do not recommend the application of circumscribed treatment content in specific sessions or an optimal number of sessions per intervention (Greene *et al.* 2004). Therefore while a guide to the specific application of the CPS model is available on the CPS website by means of numerous resources (i.e. journal articles, videos, audio clips and assessment instrumentation as well as training and workshops with coaching and supervision delivered worldwide), no specific treatment manual is available (Lives in Balance. (n.d.) Retrieved July 30, 2017 from <http://www.livesinthebalance.org/about-lives-in-the-balance>). One study relied primarily on the book 'Treating Explosive Kids' (Greene and Ablon, 2005) as an intervention guide (Johnson *et al.* 2012). Sites of implementation varied and included inpatient hospital (Martin *et al.* 2008), schools (Schaubaum *et al.* 2011; Stetson and Plog, 2016) and clinics (Epstein *et al.* 2010; Greene *et al.* 2004; Johnson *et al.* 2012; Ollendick *et al.* 2015).

In all studies CPS was delivered in a flexible and individual manner and so the length and intensity of the intervention varied considerably between studies. Greene *et al.* (2004) argue that the high level of individualisation of the CPS model enhances the ecological validity of the model. All therapists and trained staff and teachers who provided the CPS intervention determined session content based on their opinion of the individual needs of the child and family.

The duration of the parent and child interventions ranged from six to 16 weeks (Epstein *et al.* 2010; Greene *et al.* 2004; Johnson *et al.* 2012; Ollendick *et al.* 2015). Martin *et al.* (2008) trained staff members in a psychiatric inpatient unit for children to implement CPS over a six-month period. Two studies explored the training of teachers to implement CPS over a nine-week (Schaubaum *et al.* 2011) and yearlong (Stetson and Plog, 2016) implementation phase. All CPS trainers in all studies had received training in the CPS model. Weekly supervision from certified CPS trainers was given to implementing therapists in three studies (Greene *et al.* 2004; Martin *et al.* 2008; Ollendick *et al.* 2015). Certified trainers in the CPS approach trained teachers to implement CPS in two studies and weekly consultation was also provided to teachers while they implemented the approach (Schaubaum *et al.* 2011; Stetson and Plog, 2016). A treatment adherence scale developed by the author of the model was used in three studies (Epstein *et al.* 2010; Greene *et al.* 2004; Ollendick *et al.* 2015). While this scale is not an established treatment adherence or competency scale, the importance of strict treatment adherence when working on individual behaviour, which is so varied and complex, is questionable.

Findings

All studies found significant improvements among multiple domains of participant functioning following the implementation of CPS. Studies reported significant reductions in ADHD and ODD symptomology (Johnson *et al.* 2012), disruptive and oppositional behaviours (Greene *et al.* 2004; Epstein *et al.* 2010), use of seclusion and restraint (Martin *et al.* 2008) and school discipline referrals (Schaubaum *et al.* 2011). Parent stress levels decreased and parent-child relationships improved (Epstein *et al.* 2010; Greene *et al.* 2004). In educational settings, teachers reported significantly reduced stress levels and improved student-teacher relationships (Schaubaum *et al.* 2011; Stetson and Plog, 2016). Teachers also reported an overall improvement in student social-emotional learning skills, specifically in the areas of behaviour regulation and emotional control (Stetson and Plog, 2016). Teachers trained by school psychologists reported that training in the CPS model provided them with an alternative means of understanding their students' behavioural issues while prompting them to use CPS skills to effectively problem solve with their students (Schaubaum *et al.* 2011; Stetson and Plog, 2016). Teachers fully agreed with the underlying philosophy of the CPS model 'Kids do well if they can' (Stetson and Plog, 2016). The majority of teachers described the CPS model as easy to understand and felt 'confident' or 'very confident' in their ability to implement the model (Stetson and Plog, 2016). Over half described the model as easy to use (Stetson and Plog, 2016). Teachers also felt ongoing consultation and coaching with trainers supported their efforts in dealing with behaviour that challenges (Schaubaum *et al.* 2011; Stetson and Plog, 2016).

Epstein *et al.* (2010) reported a large effect size for the reduction of problem behaviours in the sample population, while Stetson and Plog (2016) reported small to moderate effect sizes. Large effect sizes were also reported for the

reduction of ADHD symptomology (Ollendick *et al.* 2015), ODD symptomology (Greene *et al.* 2002) and school discipline referrals (Schaubaum *et al.* 2011). While large effect sizes sound promising, they are nonetheless tentative given the small sample sizes in these studies (small samples tend to increase effect size measures). While Martin *et al.* (2008) and Johnson *et al.* (2012) found CPS to be effective in reducing problem behaviours, neither reported or provided sufficient data to calculate an effect size.

Discussion

This review has shown that CPS can be effective in alleviating behavioural issues in home, school, inpatient and outpatient settings. Behavioural issues reduced, parent and teacher stress decreased and parent-child relationships and students' social emotional learning skills improved considerably after staff managing the CPS intervention were appropriately trained. This suggests that behaviour improved when youth worked collaboratively and proactively with an adult to solve problems that had been identified to contribute to behaviour that challenges.

This review has important implications for educational psychology services in our schools. A significant reduction in problem behaviours, discipline referrals and teacher stress in addition to improved student-teacher relationships and socio-emotional learning skills suggest this collaborative approach to behaviour management can be effectively implemented in educational settings. While the underlying philosophy of the CPS model can be used as a universal intervention with all students in a school, it has substantial potential as a targeted and intensive intervention for students exhibiting more significant behavioural issues. This move from behaviour modification to problem solving would ensure a preventative and collaborative approach to behaviour management that promotes respect and joint decision making where the voice of the child is clearly heard. It has been argued strongly that respecting children's views and involving them meaningfully in decision-making processes which affect them is not only good pedagogical practice but a fundamental right of the child (Welty & Lundy, 2013). Furthermore, CPS approaches can help teachers build relationships with students who struggle with interpersonal relationships. This approach may be particularly relevant to older children and for children for whom traditional behavioural techniques have not proved successful. In order to promote the CPS model as an effective evidence-based intervention to dealing with children presenting with behaviour that challenges, the training needs of educational psychologists and teachers and the resources needed to implement the CPS model should be considered by the relevant stakeholders. Once proficient in the application of the CPS model, educational psychologists could train and support teachers through ongoing coaching and consultation, to deal with behaviour that challenges in a non-punitive, non-adversarial and collaborative way.

Despite the many apparent strengths of the CPS model, this systematic literature review has revealed significant methodological weaknesses in the current body of research. Despite the fact that two published randomised control trials were included in the review, small sample sizes in both papers impact upon the interpretation of overall findings. While all studies found significant improvements among multiple domains of participant functioning following the implementation of CPS, findings can only partly inform resource allocation decisions as the cost effectiveness of the model was not considered alongside intervention effects in any of the included studies. Furthermore, an exploration of aspects of intervention integrity would have been beneficial to help explicate the mechanisms of intervention success and help identify and teach the central skills needed to successfully implement this model. Methodological weaknesses will need to be addressed in future research alongside evaluations of the long-term effectiveness and implementation of CPS in order to increase Educational Psychologists' confidence in understanding, using and recommending the CPS approach.

In summary, the research suggests that CPS was effective in reducing behavioural issues in children and adolescents at home and in both clinical and educational settings and while further research regarding the evaluation of CPS is strongly recommended, initial findings are promising.

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