Educational Psychology and Dyslexia: An Investigation into Current Thinking and Practice

A thesis submitted to the University of Manchester for the degree of Doctorate in Educational and Child Psychology (D.Ed.Ch.Psychol.) in the Faculty of Humanities

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Thesis Abstract

The University of Manchester
Allison Inoue

Educational Psychology and Dyslexia: An Investigation into Current Thinking and Practice

D.Ed.Ch.Psychol. 2013-2016

Paper 1
This first of three papers identified current areas of educational psychologist (EP) scholarship across key publications read by a sample of 13 EPs working in three different models of service delivery in England on the topic of developmental dyslexia (henceforth, dyslexia). Findings imply that the EPs sampled do not access high quality scientific research literature on dyslexia; most of the literature accessed appears to be non-peer reviewed and there is little information to support the development of EP practice for assessment and intervention, understanding the link between literacy failure and mental health, or how all this contributes to a consultation method of service delivery.

Paper 2
The focus of the empirical paper was to describe and analyse how EPs currently conceptualise dyslexia and delineate what they do with regard to assessment and intervention. Furthermore, it explored how EPs’ beliefs about dyslexia, and the wider social context, impact on practice. Findings suggest that dyslexia remains an area of significant confusion and contradiction for the EPs interviewed. Most continue to rely on the British Psychological Society’s (BPS, 1999) definition but this appears to add to their confusion rather than clarify their thinking which, in turn, seems to reinforce their beliefs or ‘world view’ about dyslexia. A very narrow range of actual practice in terms of assessment and intervention was described by the participants.

Paper 3
The final paper discussed evidence-based practice (EBP), effective dissemination strategies to promote and measure outcomes, and the impact of such research. To conclude, some thought is given to ways in which the current research contributes to EBP and possible media for dissemination.
Declaration

No portion of the work referred to in the thesis has been submitted in support of an application for another degree or qualification of this or any other university or other institute of learning.
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Acknowledgements

I am greatly indebted to my supervisor Dr Janette Stothard for her invaluable support, encouragement and guidance over the past three years.

I wish to thank all the educational psychologists who were involved in the study for their time and generous cooperation.

I wish to acknowledge and thank my father John, husband Mark, and children Shaw, Cameron and Oliva, for their enduring support and faith in me.

Finally, for my mother Sheila, who loved to read.
According to Corban (2011) most research has autobiographical roots. The researcher’s interests in learning difficulties (LDs) in general and specifically in relation to dyslexia stem from her own experiences as a learner who struggled to acquire basic academic skills as a child (and who continues to display residual problems often associated with dyslexia) and as a parent of children with LDs. It was these personal and familial experiences that motivated the researcher to study primary (language) and secondary (written) issues, to qualify as a dyslexia specialist teacher and, in part, to undertake doctoral training in Educational and Child Psychology.

As evidence-based practitioners, educational psychologists (EPs) have a responsibility to consult and contribute to research evidence on a range of theoretical perspectives that underpin interventions with children and young people (CYP) through consultation with teachers, and to work on organisational change in schools (Fox, 2011). It was, therefore, somewhat bewildering for the researcher, upon embarking on training to become an EP, to encounter a perceived lack of understanding, in some quarters, of the associated difficulties CYP with dyslexia face both in school and in life in general. Some EPs’ apparent narrow ‘theoretical perspective’ in relation to dyslexia and the debate about what it is or is not has left the researcher unconvinced, despondent and wondering whether the profession had inadvertently defined dyslexia out of their practice. If this is indeed the case, how then do we manage the large volume of CYP and adults who provide personal narratives about their aspirations to simply be able to read and the social, emotional and economic consequences of them not being able to make the most of their educational experiences?

After teaching for many years in the classroom and for the last six years specialising with CYP with severe reading, writing and spelling problems in both the private and the public sectors, the researcher has formed certain opinions and conclusions. Whilst mindful that such experiences can introduce bias into this research, an alternative perspective is that there is a paucity of contemporary studies produced by people with LDs in general and specifically by EPs who are ‘dyslexic’. Indeed, most of the literature is produced by ‘non-disabled’ people discussing ‘disabled’ people (Shakespeare & Watson, 1998).

Elliott and Grigorenko (2014) continue to challenge, inter alia, the efficacy of ‘testing’ for dyslexia and the scientific accuracy and rigour of definitions which allows the dyslexia debate to thrive. As such, the researcher questions whose interests this serves and whether it is ethical for the educationally privileged to influence public and professional opinion in such a potentially pernicious way without incorporating the voices of those labelled as dyslexic into the accepted body of knowledge. However, it is not known how much of the on-going dyslexia debate over theoretical constructs, definitions and designations has impacted on the profession. This thesis makes a new contribution to the literature because it provides contemporary insight, using their own words (and by ‘one of their own’), into some of the challenges of EP practice in the field of dyslexia.

There is sufficient up-to-date research supporting the existence of a discrete group of CYP and adults, who have persistent literacy difficulties, despite being of
at least average intelligence and having received ample educational experiences, i.e. they have ‘unexpected’ difficulties in certain spheres. Associated difficulties in working memory and in the speed of processing material (verbal and/or nonverbal) also reliably feature (Nergård-Nilssen & Hulme, 2014). This appears largely independent of social class, but has a tendency to rise among CYP from more socially disadvantaged families, through various adverse inherent and environmental factors (Ramus, 2014). It is not unreasonable to call this group ‘dyslexic’. Given the opportunity, many who consider themselves ‘dyslexic’ have stated that they prefer this label over ‘learning disability/disability’, ‘specific reading disability’ or indeed “… thick, lazy, careless and dumbo” (Miles, 1995, p.164).

This researcher positions herself with the ‘second wave’ social model of disability which argues for a distinction to be made between impairment and disability (e.g. Hughes & Paterson, 1997) and where writers have refocused attention on to impairment in an attempt to redress the abandonment of the ‘body’ that is the legacy of the original social model. This turn was part of a re-socialisation of impairment that allows for accounts of both lived experience of impairment and the ways that impairment is discursively embodied (Goodley, 2001). Therefore, this researcher does not contend that dyslexia is located solely within the individual nor is it a socially constructed phenomenon: rather knowledge and understanding of the impairment is needed to help remove the barriers which are disabling.

As Shaywitz and colleagues (1992) have concluded that dyslexia is part of a continuum that includes normal reading ability and is not an “all-or-none phenomenon” (p.149), the British Dyslexia Association’s definition (Peer, 2006) of dyslexia has been adopted for this research. The rationale for a more inclusive stance is that it takes into account the breadth of difficulties a learner with dyslexia may experience. Therefore, dyslexia can be defined as:

“A complex learning difficulty that is neurobiological in origin and results in problems with reading, writing, spelling and short-term working memory with concomitant deficits in mathematics, concentration, personal organisation and sequencing” (Peer, 2006).
REFERENCES:


PAPER 1: LITERATURE REVIEW

How is dyslexia represented in the academic journals regularly accessed by educational psychologists?

ABSTRACT:
It is now 17 years since the publication of the British Psychological Society’s (BPS, 1999) landmark ‘Yellow Book’. In the intervening years, there has been a significant amount of academic research in the field of dyslexia. This has recently been summarised in the book, ‘The Dyslexia Debate’ by Elliott and Grigorenko (2014a). Whilst acknowledging the advances made, the authors nevertheless reignited a long-standing debate by questioning the validity and relevance of the term ‘dyslexia’. Since a failure of children and young people (CYP) to acquire competent literacy skills, with its concomitant effect on academic achievement and emotional well-being, relates directly to the theoretical and practical aspects of the educational psychologist’s (EP’s) role, an investigation into what literature EPs are currently accessing in relation to the field of dyslexia seemed both timely and relevant.

Twenty eight EPs were approached and asked to list the journals they most regularly read. A search was then undertaken to find articles relevant to the topic of dyslexia published in the listed journals in the last five years. Two layers of analysis were subsequently conducted, the first to provide an overview of the content of all relevant articles identified and the second to analyse in more depth relevant articles accessed by at least 50 percent (%) of the sample. Findings suggest that the respondent EPs were not accessing high quality academic research literature in the area of dyslexia. Most commonly read were non-peer reviewed articles or letters. There was very little in the literature to support the development of EP practice in relation to the five core functions outlined by Farrell, Woods, Lewis, Rooney, Squires, & O’Connor (2006).

**Keywords:** Dyslexia, educational psychologists, school psychologists, specific learning disability, educational psychologists’ role
INTRODUCTION:
In the UK, the number of people in the general population estimated to have dyslexia ranges between five and ten percent, depending on the definition used (Shapiro, 1996; Singleton, 1999). Recent advances in both theory and research from the fields of medicine (Miller & O’Donnell, 2013), neuroscience (Giraud & Ramus, 2013), and psychology (Unhjem, Eklund, & Nergård-Nilssen, 2014) have made significant contributions to our understanding of the nature of dyslexia. However, while scientists are closing in on the neural and genetic bases of dyslexia (Gabrieli, 2009), educational theorists, including EPs, are still debating whether dyslexia exists and, if so, whether knowing that CYP have dyslexia should have any bearing on classroom practices (Elliott & Grigorenko, 2014a). This is despite the fact that dyslexia appears in the International Classification of Mental Disorders (10th ed.; ICD-10, World Health Organization [WHO], 2010), the Diagnostic and Statistical Manual of Mental Disorders (5th ed.; DSM–5; American Psychiatric Association [APA], 2013) and the Equality Act 2010 (Equality and Human Rights Commission, 2010), which includes the term ‘dyslexia’ by name and has designated it as a “developmental” difference (Section A6, p.8).

One in five (1.62 million) CYP struggle to acquire literacy skills which are sufficient to cope with demands of a secondary curriculum (Jama & Dugdale, 2012). The argument appears to centre on the value or otherwise in differentiating between those CYP whose literacy difficulties are attributable to dyslexia and those attributable to other factors and how this, in turn, relates to intervention. Important though this debate may be, it could be argued that a narrow focus only on literacy development is disadvantageous to those CYP who have dyslexia, which is considered ‘developmental’ as the behavioural profile of dyslexia changes over time (Scarborough, 2005). Other associated factors, such as underlying language problems, memory and organisational difficulties often become more apparent with age and impact widely on school success (e.g. Snowling & Hulme, 2011, 2012; Hayiou-Thomas, Dale, & Plomin, 2014). The concomitant social and emotional impacts of dyslexia have been well documented (e.g. Glazzard, 2010).

The issue of dyslexia, then, would appear to relate to both the theoretical and practical facets of the EP’s role. EPs as “…Dewey’s ‘middlemen,’ the professionals
who mediate between psychological research and practice” (Rosenfield, 2008, p.259) are ideally placed to contribute to an open debate on dyslexia. The ‘bread and butter’ of an EP’s daily work involves working alongside teaching staff to improve learning outcomes and support the social and emotional development of CYP. However, an initial screening of peer reviewed literature suggests that much of what constitutes best practice in relation to dyslexia is published outside the journals considered most relevant to EP practice. In order to establish the extent to which EPs engage with the latest research and evidence-based practice (EBP) a first step is to investigate, “What do EPs consider to be relevant literature (i.e. what do they read)” The purpose of the current review, therefore, is twofold. Firstly it aims to categorise and summarise articles from publications that most closely reflect the state of dyslexia scholarship within journals that EPs regularly read. Secondly, having analysed the content of the articles, it aims to explore whether any potentially important areas of interest are not represented in the literature most regularly accessed by EPs. This has resulted in the following literature review question (LRQ): How is dyslexia represented within journals that educational psychologists regularly read?

METHOD:

The literature review consisted of an extended systematic literature review that included an audit of published literature in the field of dyslexia in journals frequently read by the participating EPs.

The audit process plays an essential role in serving the public interest to strengthen accountability and reinforce trust and confidence in a particular field. There are several different theories that may explain the rationale for an audit for which the ‘lending credibility theory’ appeared most relevant to this systematic literature review (Volosin, 2007). The theory suggests that the primary function of the audit is to ‘sell’ to the readers the credibility of a process to increase confidence in the findings presented. In other words, any conclusions that are made in respect of the current state of dyslexia scholarship in journals read by practising EPs are based on reliable information.
This systematic evaluation was divided into two phases:

- Phase one: identification
- Phase two: analysis. Phase two comprises two stages, 1) an audit and 2) content analysis of the journal articles reported to have been read by at least 50% of participating EPs.

**Phase One - Identification**

Firstly, using opportunity sampling an email was sent to 28 practising EPs to identify the top five academic journals they most frequently read. Included in this group were EPs working within a local authority context and also those working as academic and professional tutors on doctoral training courses located in five different regions in England\(^1\). They were asked four questions 1) What are the top five journals that you read? 2) Which region did you train in? 3) Which region are you currently employed in? and 4) Which region(s) have you previously worked in? This ‘top-down’ design was employed as a starting point as it helped focus the literature review process on its overarching purpose. The approach explicitly derives each process decision by working downwards to identify a series of sub-goals that link the ultimate goal at the ‘top’ with the existing reality at the ‘bottom’ (Cobb, 1990). Of the 28 EPs contacted, 13 responded and cited 12 journals between them.

The second element of the identification process involved undertaking by hand a preliminary review of literature, focusing on article titles that met the following criteria: published in the 12 journals cited by the EPs sampled from January 2010 through December 2015; included “dyslexia/ dyslexic” or “specific learning difficulty(ies)/disability(ies)” in its title; and written in the English language. A hand search was initiated as the researcher was interested in how often the terms ‘dyslexia’ or ‘specific learning difficulty’ were used. Furthermore, it was assumed that this search strategy may capture non-academic articles in addition to peer-reviewed articles. The five year time period was selected as Bernardes, Shaw, Menzies and Baars (2015) posit that reforms to the English school system since

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\(^1\) North West (NW), North East (NE), West Midlands (WM), South West (SW) and South East (SE).
2010, including the 2014 Children and Families Act, have had a great impact on CYP with special educational needs and disability (SEND) in general and specifically concerning those with dyslexia. All articles pertaining to the topic of dyslexia, whether peer-reviewed or not, were included in the review process. While it is acknowledged that the peer review process is integral to scholarly research (Emanuel, Wendler, & Grady, 2000), designed to prevent dissemination of irrelevant findings, unwarranted claims, questionable interpretations, and personal views, nine of out 13 EPs stated that they read articles not peer reviewed in their top five choices. It seemed reasonable, therefore, to include these articles in the analysis.

The first round of article identification was conducted between September 2015 and November 2015. Only 37 articles were identified so in order to ensure a thorough systematic search, in December 2015, a computerised literature search was conducted within the same journals to check the titles, abstracts and key words using the following terms:

“dyslexi*” OR “specific learning difficult*” OR “specific learning disabilit*” OR “specific reading disabilit*” OR “learning difficult*” OR “literacy difficult*” OR “literacy problem*” OR “reading disorder*” OR “reading disabilit*” OR “reading impairment” OR “reading problem*” OR “reading difficult*” OR “reading-delay”

The computerised search resulted in the identification of a further 76 potentially relevant articles, giving a total of 113 full text articles assessed for eligibility. Of these, 40 articles were excluded for a variety of reasons, for example they were not relevant to the LRQ (see Appendix E). This left 73 articles.

**Phase Two - Analysis**

Stage 1 of the analysis comprised assigning each of the remaining 73 (see Appendix C-D) for articles to one of five categories in line with the core EP functions described by Farrell *et al.*, (2006)²:-

---

² consultation, assessment, intervention, research and training
(1) EP consultation,
(2) Assessment and identification of dyslexia (including familial risk),
(3) Investigations into a specific intervention,
(4) Research into the state of the science (e.g. the aetiology of dyslexia, causal theories, co-morbidities),
(5) EPs’ role in wider service-delivery (e.g. training, Local Authority [LA] policy development).

Based on the methods described by McKenney, Dorencz, Bristol and Hall (2015), any article not clearly falling into one of the five categories was given its own descriptor as a potential category. Following this process, two further categories were created:

(6) Social, emotional and mental health (SEMH) issues relevant to CYP with dyslexia, and
(7) Broader issues including attitudes, beliefs, controversies, debates, or legal challenges.

It is acknowledged that these additional categories do not fit the descriptor ‘core functions’ and might be better described as ‘areas’. However, it was deemed appropriate to create these additional categories given the large numbers of articles whose content could not accurately be captured in any other way.

An independent reviewer checked all the designations assigned by the researcher and initial agreement was achieved on all but two articles. Deliberation was given as to whether a study investigating the progress of CYP attending a resourced provision for dyslexia should be included in Category 3, Category 5 or an additional category. Similarly, discussions were held to clarify whether co-occurring difficulties placing CYP at risk of persistent literacy difficulties or dyslexia should fall into Category 2 or Category 4. It was decided by the researcher that creating additional categories (due to the paucity of literature across most frequently cited journals) would not add any further value and so the former article

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3 published article on autism
4 An EP colleague and former doctoral student.
was included in Category 2 and the latter in Category 4. This concluded Stage 1 of the analysis.

Stage 2 of the analysis involved only the articles appearing in journals reported to have been read by 50% of the EPs. This resulted in 21 articles being identified for more detailed content analysis. Whilst an overview of the articles contained in all the journals identified by the respondents is informative in itself, a more detailed examination of those articles most likely to have been read or accessed was considered to be of particular interest.

The search process is illustrated in Figure 1 using the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) four-phase flow diagram (Moher, Liberati, Tetzlaff, & Altman, 2009).
Figure 1. PRISMA four-phase flow diagram

**Identification**
- 37 articles identified

**Computerised search in the 12 journals**
- Using key search terms on titles, abstracts and key words
- 76 additional articles identified

**Screening**
- 113 full text articles assessed for eligibility
- 40 articles excluded with reasons

**Eligibility**
- 73 full text articles included in the overview of what EPs are reading/accessing (Stage 1)
- 52 articles excluded as they were not contained within journals 50% of EPs purported to read

**Included**
- 21 articles included in Content Analysis (Stage 2)

**Key Words in Titles:**
- “dyslexia/dyslexic” or “specific learning difficulty/disability”

**Key Search terms:**
- (“dyslexi*”);
- (“specific learning difficult*”); (specific learning disabilit*);
- (specific reading disabilit*); (learning difficult*); (literacy difficult*); (literacy problem*); (reading disorder*); (reading disabilit*); (reading impairment);
- (reading problem*);
- (reading difficult*);
- (“reading-delay”).
RESULTS:
Thirteen of the 28 EPs contacted responded to the researcher’s email (46.4% response rate). Table 1 shows the number and percentage of EPs from each region.

<table>
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<tr>
<th>Regions</th>
<th>Educational Psychologists (N=13)</th>
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<tr>
<td></td>
<td>Training Region</td>
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<tr>
<td>North West (NW)</td>
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<tr>
<td>North East (NE) including Yorkshire &amp; Humber</td>
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<td>West Midlands (WM)</td>
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<td>South West (SW)</td>
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<td>London (SE)</td>
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<tr>
<td>Scotland</td>
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* Three EPs had previously worked in more than one region/country (including Scotland).

Summary information for Stages 1 & 2 of the review will now be presented. Data from Stage 1 of the analysis were used to provide numerical information only, while data from Stage 2 were used to undertake a more detailed content analysis of each relevant article (21 articles in total).

Stage 1:
Seventy three articles in total published between 2010 and 2015 were identified as appearing in the 12 journals reported to be read by the respondent EPs. These journals were: Advances in School Mental Health Promotion; British Journal of Educational Psychology; British Journal of Special Education; Child & Adolescent Mental Health; DECP Debate; Educational & Child Psychology; Educational Psychology in Practice (EPiP); International Journal of School & Educational Psychology; Journal of Child Psychology & Psychiatry (JCPP); Psychology in the Schools; School Psychology International; and The Psychologist.

Table 2 details the number of articles and their corresponding categories. All 13 EPs read two journals (Education & Child Psychology and EPiP). In those two important journals there were only six articles whereas only three EPs read the JCPP and two EPs read Psychology in the Schools which between them contained a total of 39 articles. Nine EPs included The Psychologist and eight EPs included Debate
in their top five journals: both publications are not subject to the peer-review process.

**Stage 2:**
 Fifty percent of the EPs sampled reported that they read the following five journals: Advances in School Mental Health Promotion; Educational & Child Psychology; EPiP; Debate; and The Psychologist. Table 3 details the number of articles and their corresponding categories. Twenty one articles in total relating to the search criteria were published in these journals. The diverse nature of the articles found in the cited journals as well as varying priorities and acceptance criteria across journals makes any attempt at assessing the quality of the individual articles using recommended qualitative or quantitative frameworks difficult. Furthermore, the intent of the review was to describe the current state of dyslexia scholarship in journals as read by practising EPs and not within or among any particular publications.
Table 2. Number of Articles per Journal Falling into Each Identified Category

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<td>2. Assessment and identification of dyslexia (including familial risk).</td>
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<td>3. Investigations into a specific intervention.</td>
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* Number of EPs who reported they read the journal in their top five choices. **First year of publication = 2013.
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<th>Advances in School Mental Health Promotion (N=6)</th>
<th>DECP Debate (N=8)</th>
<th>Educational &amp; Child Psychology (N=13)</th>
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<td>1. EP consultation</td>
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<td>2. Assessment and identification of dyslexia (including familial risk).</td>
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Summary information about articles relating to each of the seven categories identified:

Category 1: EP consultation
None of the 12 journals dedicated attention to how the consultative principles apply to the needs of CYP with dyslexia or persistent literacy difficulties. This is surprising given that consultation is a key means of service delivery in many EP services (Leadbetter, 2006). Furthermore, consultation has been highlighted as a positive example of EP practice in reviews such as the Department for Education and Skills (DfES, 2006). Nothing is known therefore of the role EP consultation plays in evidence-based practice in relation to dyslexia.

Category 2: Assessment and identification of dyslexia (including familial risk)
Articles specific to the assessment or identification of CYP suspected of having dyslexia or at risk of developing dyslexia were included. Twenty articles published across the 12 journals over a five year period described or evaluated either models, tools or specific measures involved in the assessment procedure. However, in the five journals most frequently read by EPs, only three studies were identified, each of which was retrieved from the same journal (i.e. Educational and Child Psychology). All three articles focused on developing appropriate tools to assess CYP at risk of literacy learning difficulties when English was an additional language (EAL) (Lyon & MacQuarrie, 2014) or where CYP were bilingual (Sadeghi, Everatt, McNeill, & Rezaei, 2014) or multilingual (Brookes, Ng, Lim, Tan & Lukito, 2011). Two of the papers were quantitative in design. One applied the Simple View of Reading as a model to assess decoding and comprehension skills (Sadeghi et al., 2014) and the other explored the effectiveness of the Lucid Rapid Dyslexia Screening (LR), a computer-based assessment (CBA) used in the identification of children at risk of dyslexia in a Singaporean context (Brookes et al., 2011). The third paper by Lyon and MacQuarrie (2014) adopted a qualitative approach and explored what resources were available for teachers of Gaelic-medium education (GME) to assess and diagnose language and literacy difficulties.

Although each article may be interesting in relation to very specific populations, of the three, it is perhaps only the article by Brookes et al. (2011) which
examines a topic (computer screening as an assessment tool) more widely applicable to general populations. There is nothing about assessing and identifying dyslexia in the general population in the five most commonly read journals.

**Category 3: Investigations into a specific intervention.**

Twenty papers were identified in this category, but only one was relevant to the five most commonly read journals. The study by Roberts and Norwich (2010) investigated the impact of precision teaching (PT) interventions delivered by trained teaching assistants (TAs) on secondary school pupils in the UK with literacy learning needs. Roberts and Norwich’s article is noteworthy given the paucity of UK studies on the efficacy of PT with secondary-aged pupils. Moreover, the focus was not on assessments from summative measures but the formative aspects of PT procedures. In other words, the research aimed to illuminate the ‘processes’ that underpin learning experiences for CYP to improve reading outcomes via skills of the TA. Whilst much has been published about the theoretical concepts that underpin PT, the authors acknowledge insufficient focus on formative aspects of PT procedures.

The selection and implementation of specific interventions does not appear to be an important topic in the journals that the sampled EPs read over the past five years. However, the article by Roberts and Norwich (2010) is a very useful one in that PT is an intervention commonly recommended by EPs. Furthermore, it highlights how EPs can work at a more strategic level to support and develop existing skills with school staff.

**Category 4: Research into the state of the science regarding the aetiology of dyslexia/ causal theories/co-morbidities**

Nine articles in total focused on either causal theories, developments in neuroscience or co-occurring difficulties, two of which were published in The Psychologist and relevant to the journals of EP choice.

Howard-Jones (2011) draws upon contemporary neuroscience research to consider how best to translate our understanding of neuroscience into educational practice, and what role psychology may have in such an endeavour. The article does
not specifically centre on dyslexia although it does make reference to the work of Shaywitz et al. (2003), Simos et al. (2002) and Temple et al. (2003) to illustrate how neurological findings can inform dyslexia interventions.

In the second paper, Goswami (2013) reports on her Temporal Sampling Theory (TST) derived from on-going research in auditory neuroscience. CYP with dyslexia are reported to have difficulties in being able to reflect on the sound structure of words (i.e. develop phonological awareness). TST proposes that an underlying neural problem with rhythmic entrainment accounts in part for the ‘phonological deficit’ that characterises CYP with dyslexia.

Howard-Jones’ article provides context and a potential role for psychologists while Goswami’s article focuses on specific explanations for some of the difficulties CYP with dyslexia may have. These two disparate articles illustrate not only the breadth of the category but just how few published articles fall into it. Reflections on this appear to suggest that EPs are not accessing up-to-date and relevant research in this area.

**Category 5: EPs’ role in wider service-delivery.**

Two journal articles were identified for this category, both published in EPiP. In Woods, Stothard, Lydon and Reason’s (2013) paper, they promote the distinctive contribution EPs can make towards developing policy and practice in relation to dyslexia. The aim of the paper was essentially about ‘how’ policy development occurs rather than ‘what’ the specific policy or dissemination looked like.

The second paper by Warhurst and Norgate (2012) was placed in this category (rather than Category 3) as it reports on the implications for EPs in terms of evidence-base for the efficacy of placing CYP in specific learning difficulties (SpLD) resourced provision rather than a specific intervention per se. The authors measured the long-term progress in literacy and the relationship between attainment and self-efficacy (SE) across the course of pupils’ secondary education. The authors conclude that pupils within the SpLD provisions made continual progress in literacy skills and had begun to narrow the gap between themselves and their peer group despite making a ratio gain of >1.00. Improvements were also gained in SE, which
is suggestive of SE improving in line with attainment. This relationship is likely to be reciprocal in nature or perhaps due to other factors (e.g. being with peers with similar difficulties in a setting with knowledgeable and sympathetic teachers). However, causality could not be established in this study due to its correlational design. Additionally, investigating why some pupils did not make any progress seems prudent for future studies especially if recommendations on SpLD placements are made by LA EPs. Similarly, tracking the individual progress of CYP with the same entry criteria as the pupils in this study but who do not attend a SpLD provision merits investigation.

Having been published in EPiP, as one would expect, both these papers, one on policy development and the other on resourced provision are relevant to EP practice.

Category 6: Social–emotional issues relevant to CYP with dyslexia.
Three of the 12 journals reported on the association made between dyslexia and social-emotional issues. However, none of these articles was published in the five peer reviewed journals which is somewhat surprising given the substantial overlap of literacy problems with a range of SEMH issues including anxiety, depression (e.g. Carroll, Maughan, Goodman, & Meltzer, 2005) and conduct problems (e.g. Arnold et al., 2005) depicted in the literature.

Category 7: Broader issues including attitudes, beliefs, controversies, debates, or legal challenges.
The largest number of publications relate to this category (18 in total). Thirteen of them were published in the journals reported to be most read by the EPs, 11 of which were to be found in The Psychologist and two in the DECP’s Debate. All but two of the articles were letters to The Psychologist and can be categorised broadly into two camps, three ‘for’ and six ‘against’ the label dyslexia. Two of the letters in support of dyslexia were written by experienced teachers and one by a practising EP with more than 50 years’ experience (Lawrence, 2014). All three articles address Elliott and Grigorenko’s book ‘The Dyslexia Debate’ and largely disagree with the notion of a narrow definition. Referring to their vast experience either assessing or teaching CYP, they posit that poor working memory (subsumed within Baddeley’s
model of working memory) seems to define this group. The EP presented analyses of 447 higher education students referred to him for assessment of which 95.3% had below average scores on the Working Memory Index and 95.5% had below average scores on the Speed of Processing Index but above average scores on the Verbal or Non-verbal Reasoning Index of the Wechsler Adult Intelligence Scale (see Lawrence, 2009). All three letters note that older students did not have difficulties either with reading under ‘normal’ conditions or the ability to grasp concepts, solve problems, think critically or generate ideas. Rather they struggled to demonstrate these abilities through assessment methods which demand they process information quickly, memorise and regurgitate information or read and write under timed conditions. These findings appear to be in line with a developmental perspective of dyslexia in that for young adults who learn to read, residual problems exist which continue to make learning challenging for them. These authors suggest that for them, dyslexia refers to difficulties with the underlying cognitive processes involved in the phonological encoding and decoding of working memory which affects all language-based learning.

Six letters question the validity of the dyslexia label. One short letter appears to imply that ‘anxiety’ makes people unable to read (Yule, 2014). Another asks whether the two community studies (Isle of Wight: Rutter & Yule, 1975 and Clark, 1970) remain relevant (Clark, 2014). Given that these studies supported a diversity of difficulties and not an underlying pattern common to the group of CYP with dyslexia seems to support, in part, Elliott and Grigorenko’s (2014b) call for the end of a single syndrome of ‘dyslexia’. Higgon’s (2014) letter makes links between dyslexia and prosopagnosia and suggests that the ability to ‘learn’ and recognise a face is simply a skill, like reading, which is more-or-less normally distributed in the general population. This implies a predisposition to being able to read or not (and shades in between) thus suggesting any difficulties are solely located within the CYP. Raven (2014) argues that ‘dyslexia’ is generated by a “deeply dysfunctional school system largely designed by bureaucrats” (p.809) and provides a system to benefit those who design ‘diagnostic’ instruments, run courses, write reports and parents who are able to negotiate to advantage their CYP. Two letters report on Bishop’s keynote article (Bishop, 2012). The first by Slocombe (2012) uses Bishop’s lack of findings of “… a convincing biomarker” (p.423) as suggestive of
dyslexia being a useless designation and advocates the term ‘neurodevelopmental disability’ as a more helpful label. An EP and author of the second letter on Bishop’s conference keynote (Sharpe, 2012), feels reassured by Slocombe’s interpretation of Bishop’s writing and confesses to have “… used, avoided using, alluded to and skirted round the term ‘dyslexia’, called it something else and generally sat on the fence” (p.487) and states her justification in doing so. Although drawing the line at the terminology ‘neurodevelopmental disability’, the EP questions whether CYP with such difficulties require a qualitatively different approach (“… or do they just need to be taught to read and spell?” p.487) and suggests what actually matters is the quality of the relationship between the CYP and their teacher.

In promoting their book ‘The Dyslexia Debate’, Elliott and Grigorenko (2014b) summarise in The Psychologist, the “… raft of research studies” (p.577) that demonstrate that the distinction between poor readers and dyslexics is not meaningful in terms of differentiation, interventions or prognosis. Their ‘response to intervention’ proposal may be a good approach for identifying and accommodating reading disabilities, but their position is undermined by trying to re-label ‘difficulties’ instead of leveraging dyslexia awareness and effective interventions (Bates, 2014).

The final article in the Psychologist reported on Snowling’s British BPS Academy lecture (Snowling, 2013, reviewed by Jarrett, 2013) which outlined the links between reading difficulties and earlier language delays and reported on her recent meta-analysis (14 studies) on familial incidence of dyslexia. She concluded that a phonological deficit is a cognitive risk factor but not an absolute cause (i.e. an endophenotype). She did not find any differences in the home literacy environment between CYP at family risk and controls. Finally, Snowling described her latest work on interventions for dyslexia stating that the current ‘gold standard’ remains teaching letter-sound knowledge; increasing phoneme awareness (in the context of book reading) and developing oral language skills in young CYP.

Two articles were published in the DECP’s Debate. The first by Reason and Stothard (2013) compared the definitions of dyslexia in the DECP ‘Yellow Book’ report with the Rose Review (2009) written ten years later. It concludes that there
are many points of similarity between the two definitions, with the only significant difference being the Rose Review’s emphasis on dyslexia as a continuum as opposed to a category. The article explored the usefulness of the word ‘dyslexia’ and concomitant issues around labelling. It concludes by arguing that it is insufficient for EPs to rely solely on their skills as process consultants and suggests that, in order to provide effective support and advice in any cases of literacy difficulties, EPs also require a sufficient level of theoretical and practical content knowledge in the area of literacy learning.

The second article by Martinielli and Schembri (2015) explored the largely anecdotal issue of dyslexic individuals possessing enhanced creative abilities. No evidence was found in this study to support the hypothesis that dyslexic individuals possessed any superior non-verbal creative skills when matched with the comparison group. It concludes that issues of non-verbal and verbal creativity remains a “moot point” (p.29).

The findings suggest that out of all the categories, Category 7 is the one EPs most access and the one that is most contentious in terms of the dyslexia debate. Consequently, it is plausible to hypothesise that this is the category that most influences EP practice.

In summary, there were no articles on consultation and dyslexia/ persistent literacy difficulties. Assessment of such difficulties was consigned to EAL or a CBA. Only one intervention study had implications for how EPs work with schools. Category 4 offered suggestions of future interdisciplinary work for neuroscience and education with psychology as the mediating discipline. There were no articles pertaining to the overlap of dyslexia and SEMH issues and finally, Category 7 was concerned mainly with value-driven debates.

DISCUSSION:

This systematic review of literature on publications about dyslexia incorporated a total of 21 articles dating from 2010 to 2015 and included research conducted in the UK, Australasia, Malta, Singapore, UK (specified e.g. Scotland, England and unspecified). It aimed to answer the research question: How is dyslexia represented
within journals that educational psychologist regularly read? By the very nature of its design and scale, the generalisability of any results is likely to be compromised by the initial selection and size of the sample and the subsequent low response rate (less than 50%). In order to reflect fully the range of literature accessed by EPs, the design further allowed the inclusion of non-peer reviewed articles and letters, thus rendering the application of a framework to assess methodological quality both inappropriate and inconsistent with the purpose of the review. These methodological considerations and limitations are acknowledged. Nevertheless, there have emerged some interesting findings, which are both relevant to current EP practice and point the way to future profitable areas of research.

The results suggest that:

- EPs sampled are not regularly accessing systematically reviewed or peer-reviewed literature on dyslexia;
- most of the literature these EPs access in relation to dyslexia appears to be in non-peer reviewed articles or letters;
- there is little in the way of information to support the development of EP practice with regard to assessment and intervention, understanding the link between literacy failure and mental health, or how all this fits with a consultation method of service delivery.

Based on the findings of the current study, it is plausible to suggest that EPs access articles or letters in relation to dyslexia which are non-peer reviewed and focus on the current debate triggered by Elliott and Grigorenko’s (2014) book, ‘The Dyslexia Debate’. Their ‘debate’ appears to emphasise inconsistencies and disagreements, perhaps to “… demonstrate, step by step, that the notion of dyslexia has no validity” rather than a more helpful synthesis of “… converging lines of evidence and points of broad agreement” (Ramus, 2014, p.3371). This sterile argument adds to the confusion and misunderstanding that EPs may (or may not) have about dyslexia as well as hindering “… the scientific status of the field” (Lyon & Chhabra, 1996, p.2). Furthermore, Elliott and Grigorenko argue for the term

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Please refer to Ramus (2014) for a full response to Elliott and Grigorenko’s ‘The Dyslexia Debate’.

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‘reading disability’ to be used instead as they see no reason to distinguish specific reading disability (dyslexia) from reading disability (or poor reading).

While the articles from the peer-reviewed journals included in this analysis do not focus on such issues per se, they do, however, highlight the lack of consistency over nomenclature and definitions. For example, there was a general lack of distinction found in the studies between terms such as ‘persistent literacy difficulties’, which may comprise writing difficulties; ‘reading difficulty/disability’, which may also refer to fluency and comprehension; and ‘specific learning difficulty’ which may include, for example, dyscalculia, developmental coordination difficulties or any number of other specific difficulties which may fall under this umbrella term. A number of articles used the terms interchangeably within the same study (e.g. Brookes et al., 2011). In Doyle’s (2002) review of literature, over 51 different terms were used, which highlights the complexities in judging how representative the participants are of the wider dyslexia community (i.e. were the participants dyslexic) and where the demarcation is between one specific learning difficulty and another. Similarly, some of the studies did not state a working definition (e.g. Warhurst & Norgate, 2012). This makes it difficult to ascertain whether the researchers included participants with dyslexia (based on an exclusionary definition, e.g. BPS), participants with literacy difficulties due to ‘other’ reasons (e.g. lack of opportunity), dyslexia (based on a more inclusive definition and which may include difficulties with working memory and/or processing speed), or specific learning difficulties (difficulties that cannot be explained by more general factors, which may or may not encompass the aforementioned categories). Consequently, ensuring whether studies are entirely valid and reliable is challenging.

In addition, EPs do not appear to be accessing high quality scientific research in relation to identifying dyslexia in CYP and what constitutes best practices in assessment and intervention methods. For example, none of the three articles pertaining to assessment was conducted in the UK despite the use of CBA such as LR being widely used. Brookes et al. (2011) suggest the widespread appeal of CBA is founded on brevity, simplicity and the fact that no specialist knowledge is required to administer them. However, one in five CYP in Brookes et al.’s (2011)
study were missed by LR and later identified as being ‘dyslexic’ by an EP and 14.2% tested on LR fell into the ‘false positive’ category (i.e. labelled ‘dyslexic’ when they were not, also recognised by an EP). Collectively, these results perhaps suggest there is a role for EPs in the assessment of dyslexia in some form or other. Furthermore, CBA are unable to account for other factors such as the interface between biological, cognitive, affective and environmental influences, which could not only impact on test performance on the day but may help explain observed difficulties on a behavioural level (Singleton, 2001). Such information is often unpicked during EP consultation to which none of the 12 journals since 2010 dedicated any attention.

The selection and interpretation of interventions over the past five years does not appear to feature much in the journals most frequently read by the EPs sampled. This is despite calls for EPs to work with school staff over time to deliver quality literacy interventions not only to “…raise staff skills and knowledge, but also bring about a sustainable influence over the lives of many children and young people” (Roberts & Norwich, 2010, p.294). Without access to a well-founded scientific basis on which to support the academic and concomitant behavioural and social-emotional challenges often found with pupils with dyslexia (Maughan & Carroll, 2006), EPs may feel inadequately prepared to address these needs. Although substantial knowledge exists regarding effective programmes developed from sound theory and research evidence (e.g. MacKay, 2008; Solity, & Shapiro, 2008), Roberts and Norwich (2010) note that EPs have had a limited impact on using empirically evaluated approaches to address national attainment issues.

No studies in this review specifically addressed interventions for CYP with dyslexia. Elliott and Grigorenko (2014a) would argue that all poor readers benefit from the same kind of evidence-based reading interventions (i.e. phonics-based teaching programmes that are particularly intensive, systematic and explicit), and therefore it is counterproductive to try and distinguish them in practice. Synthetic phonics lessons for primary schools were introduced in England in 2007 and therefore have had time to become fully embedded in the curriculum and yet there remains a substantial minority of CYP who do not seem to improve much (Ramus, 2014) rendering Elliott and Grigorenko’s (2014a) claim that ‘all poor readers
benefit “… an exaggeration” (Ramus, 2014 p.3371). Additionally, given that IQ does not seem to be a good predictor of response to intervention (Stuebing, Barth, Molfese, Weiss, & Fletcher, 2011) and the inherent difficulties in identifying recognisable sub-types of poor readers, perhaps closer research attention needs to be paid to the efficacy and evidence-base of more bespoke interventions tailored to the needs of individuals and the requisite knowledge, skills and understanding of the staff delivering the interventions to be able to do this, i.e. to expertly ‘notice and adjust’ as required. Roberts and Norwich’s (2010) study is notable in that it was designed in such a way that it would represent continual professional development for school staff rather than a one-off training experience. They found that PT on its own was not the key factor to CYP making improvements, rather it was the ongoing support and various monitoring mechanisms to promote the consistency of intervention and the involvement of key influential staff. In other words, the “…operationalisation” of an intervention appears to be as important as the “…theoretically sound and systematically evaluated” intervention itself (p.295). Consequently, Roberts and Norwich (op cit) offer their research as an “approximation” (p.295) of the sort of role an EP could fulfil.

No studies were published in the journals mentioned by the EPs in this review in relation to the SEMH needs of CYP with dyslexia. This is surprising given that findings from the Office for National Statistics British Child Mental Health Survey (ONS, 1999) provide the most comprehensive evidence to date which confirms the substantial overlap of literacy problems with a range of emotional and behavioural difficulties in childhood and adolescence regardless of sex (Carroll et al., 2005). Stampoltzisa and Polychronopoulou (2009) suggests that SEMH difficulties can be thought of as secondary symptoms in that they arise as a consequence of the primary difficulty (in this case literacy problems) and may go on to complicate the primary cause, i.e. there is a bidirectional influence. Boetsch, Green, and Pennington (1996) posit that there is an increased probability of SEMH secondary symptoms developing with increasing age, implying that early identification and remediation is crucial. Furthermore, there is a growing body of literature which represent CYPs’ social, emotional and educational experiences from a personal viewpoint (e.g. Riddick, Farmer, & Sterling, 1997; McNulty, 2003; Ingesson, 2007) in which they describe the marked effect that dyslexia has on their
self-concept and self-esteem (Humphrey, 2002), psycho-social functioning (Terres, Thompson, & Minnis, 2009), anxiety (state-trait) (Tsovili, 2004) and coping and depression (Alexander-Passe, 2006). This may suggest that despite SEMH being high on EPs’ and school psychologists’ agendas (Atkins, Hoagwood, Kutash, & Seidman, 2010) there is a perceived lack of recognition of the connection between the two, which at best may result in the symptoms being addressed rather than the cause, and at worst CYP being mislabelled with a psychiatric disorder, being medicated and still not having their underlying academic needs met.

Implications for theory, practice and future research
Nolen (2009) has described academic research journals as the “...barometers of change, indicating shifts of theoretical, ontological, or epistemological trends” (p.279). The paucity of dyslexia-specific articles in the cited journals in this review may therefore suggest a general move away from publishing about dyslexia within the discipline of educational psychology. However, one alternative explanation for the findings may be a simple one: the practicing EPs sampled (of which there were seven) do not have the same access to the many diverse peer-reviewed journals (including journals with specific interests, e.g. dyslexia) as the academic practitioners. Furthermore such journals may be targeted towards a specific audience. As the journals in this review do not have a specific focus other than psychology in general (e.g. The Psychologist) or educational psychology (e.g. E PiP, DECP Debate), it is assumed that the articles published reflect the diverse nature of the discipline itself (Nolen, 2009). However, for a compendium of research, the failure to address specific areas in the core EP literature may suggest that practising EPs are not being made aware of fundamental aspects of their discipline.

Summary
Despite the ubiquity of concern about literacy standards in the UK, studies of persistent difficulties such as dyslexia make up a very small percentage of the research literature in school and educational psychology journals cited by the EPs herein. Putting aside the ‘does dyslexia exist’ and ‘if so, what is it’ debate and given the likelihood of how often literacy difficulties however defined will form part of EP casework, there is little by way of published information to support the development of EP practice on the ground in terms of understanding the link
between literacy failure and SEMH, assessment, intervention, and how these ‘fit’ either with consultation or wider methods of service delivery. Given this, and the notion that the number of publications about a subject, particularly in recognised journals, reflects the recognition and importance of that subject (Nolen, 2009), is the relatively low number of peer-reviewed articles pertaining to dyslexia indicative of what scholars define, by default, as unimportant? Implicit in the findings of the review is what Nolen (2009) describes as “… what is missing from journals can denote what counts as irrelevant and unimportant in a field of educational psychology” (p.280). Consequently, gaining an understanding of whether the lack of research and relevant reading matters to EPs’ practice (i.e. they may not read about it but their practice is adequate anyway) would be a useful next step.
REFERENCES:


Reason, R., & Stothard, J. (2013). Is there a place for dyslexia in educational


Volosin, E. (2007). The theories of audit expectations and the expectations gap,


Where does the notion of dyslexia fit within current educational psychologists’ thinking and practice?

ABSTRACT:
Depending on the definition used, between five to ten percent (%) of all pupils are affected by dyslexic-type difficulties. These difficulties impact on academic achievement and emotional well-being and therefore support for affected pupils should fall within the remit of the educational psychologist’s (EP) role. Yet the dyslexia ‘debate’ continues to challenge the existence of the condition, the usefulness of the term ‘dyslexia’ and the difference between dyslexia and other literacy difficulties. There is very little recent research which examines the current thinking and practice of EPs in relation to dyslexia. This small scale study uses six semi-structured interviews with practising EPs to explore which theoretical models and definitions underpin EPs’ understanding of dyslexia, which factors impact on EPs’ beliefs and practice and what EPs actually do on a daily basis for assessment and intervention planning for pupils with dyslexia or dyslexic-type difficulties. The findings suggest that dyslexia remains an area of significant confusion and contradiction for the EPs interviewed. Most continue to rely on the British Psychological Society (BPS) 1999 definition but this appears to add to their confusion rather than clarify their thinking. This, in turn, seems to reinforce their beliefs or ‘world view’ about dyslexia. A very narrow range of actual practice in terms of assessment and intervention was described by the participants.

Keywords: Dyslexia, educational psychologists, school psychologists, specific learning disability, educational psychologists’ role
INTRODUCTION:
In 1999, the BPS Division of Educational and Child Psychology’s (DECP) search for a “…litmus test of dyslexia” (p.13) resulted in the ‘Yellow Book’\(^6\), which included a number of recommendations for how EPs conceptualised dyslexia and its assessment. A fundamental rationale for the report was to reach a consensus on an operational definition for dyslexia. This is important for several reasons. Firstly, if you cannot define dyslexia, how can you accurately measure it and if you cannot measure it, how do you know that the relevant children and young people (CYP) are being identified? Secondly, effective and early interventions must be based on an informed understanding of the difficulties underpinning the disorder (Lyon & Chhabra, 1996). Finally, from a research perspective, an operational definition is essential for studies to be valid and reliable. In addition to generating a ‘working’ definition of dyslexia, the report endorsed the use of the term ‘dyslexia’ over other designations and Reason (2001) stressed that it was not constructive to continue further debate on this issue.

Since then, advances in theory and research from the fields of medicine (e.g. Miller & O’Donnell, 2013), neuroscience (e.g. Giraud & Ramus, 2013), psychology (e.g. Unhjem, Eklund, & Nergård-Nilssen, 2014) and education (Shetty & Rai, 2014) have made significant contributions to our understanding of the nature of dyslexia (Washburn, Binks-Cantrell, & Joshi, 2014). Whilst there has been much progress in these domains, consensus over theoretical constructs, definitions and designations remains elusive (e.g. Lyon, Shaywitz, & Shaywitz, 2003; Rack, 2005; Snowling, 2009; Ferrer, Shaywitz, Holahan, Marchione, & Shaywitz, 2010). Opponents continue to dispute the validity of the term ‘dyslexia’ and argue for it to be “retired” (Stanovich, 2014) from both the scientific and practitioner communities (Elliott & Gibbs, 2008). Moreover, Stanovich (op cit) contends, in his synopsis of Elliott & Grigorenko’s (2014) ‘The Dyslexia Debate’, that “No term has so impeded the scientific study of reading, as well as the public’s understanding of reading disability, as the term dyslexia” (back cover).

Reason (2001) has stated that EPs have always been actively involved in helping teachers and parents support those CYP who struggle with the acquisition of literacy skills. However, in the 17 years since the DECP published its report (BPS, 1999), Educational Psychology Services (EPSs) and EPs have had to respond to a number of substantial local legislative changes and important developments within their respective local authority (LA) services. From a legislative perspective, notable were the updated Special Educational Needs (SEN) Code of Practice (CoP) (Department for Education and Skills [DfES], 2001), The 2004 Children Act (DfES, 2004a), Every Child Matters (ECM) (DfES, 2004b) and the subsequent ‘Help Children Achieve More’ initiative (Department for Education [DfE], 2010), which prioritised a narrower focus on educational achievement over ‘the whole child’ and saw a departure from the Director of Children’s Services model. More recent legislative changes include The Children and Families Act (2014) and the new CoP (updated 2015) which strengthens the role of CYP and their families and ideologically places the CYP at the centre of any decisions made.

From within EPSs, two new models of service delivery have developed: a partially-traded model and fully-traded model (Association of Educational Psychologists [AEP], 2012). Additionally, changes to the training route for EPs in England and Wales were introduced in 2005, which no longer require trainee EPs (TEPs) to have a background in teaching and learning. Little is known about how these collective developments have affected EPs’ practice, understanding and conceptualisation of dyslexia.

Following The Rose Review (2009) in which recommendations to the Department for Children, Schools and Families included the funding of 4,000 state school teachers (many of which are now ‘traded’) to undertake specialist training in dyslexia, charities such as the British Dyslexia Action (BDA) have forged ahead with their Dyslexia Friendly School initiative and are calling for a National Dyslexia and Literacy Strategy (BDA, 2012). Whilst evidence suggests this has had a positive impact on some LAs and schools, this may also place different traded services in direct competition with each other and raises questions around who provides what services and how EPs can carve out their distinctiveness in this area. Yet, progress is not universal (Rack, 2012) and the level of understanding of dyslexia in schools...
and amongst teachers varies considerably (Geeson, 2012). This is a concern as legislative and funding changes appear to focus on a smaller number of CYP with the most severe and complex needs and place even greater emphasis on the school offer for CYP with high-incidence, lower-severity needs such as dyslexia. The concern within the dyslexia community is that this will leave CYP with dyslexia considerably worse off than under the previous system (BDA, 2012). This, coupled with the ongoing ‘dyslexia debate’, may be seen as maintaining the status quo at best and an atavism, a reminder of earlier times and values, at worst.

So what contribution, as key agents of change, do practicing EPs make to these deliberations? Faire (2002) has indicated that LA EPs do not contribute to an open debate on dyslexia despite their knowledge of child development and learning in multifarious educational contexts (e.g. Nicolson, 2005; Reason & Stothard, 2013). A number of reasons is offered for this, including LAs limiting their ability to act on behalf of a child and viewing the concept of ‘intelligence’ as a reified and invalid concept (Sampson, 2001). Reason (2001) elaborates and suggests that the term dyslexia is often avoided by EPs because of its categorical, ‘within-child’ notion of SEN, which identifies the dyslexic child as being qualitatively different to the poor or struggling reader (Bell, McPhillips, & Dovestone, 2011), and their aversion to ‘labelling’ (e.g. Solity, 1991). Other reasons may include EPs’ disinclination at taking on the role of ‘expert’ (Viney, 1998), ‘recommendations’ conflicting with ‘consultation’ (Wesley & Buysse, 2006), and a lack of knowledge or interest about dyslexia in general and/or effective intervention.

However, Regan and Woods (2000) have called for an ‘on-going and interactive [role] on the issue of the measurement and evaluation of persistence in literacy learning difficulties’ (p.345). Paradoxically, EPs’ absence in this process may result in the very things they aim to avoid, i.e. more of an emphasis on ‘within-child’ deficits, increased creation of disabling barriers due to a lack of understanding and/or knowledge of how dyslexia manifests in CYP’s experiences at school, EPs being viewed by schools solely as “assessors of needs and definers of resources” (Dessent, 1992, p.74), lost opportunities to influence ‘best practice’ in this area and being ‘out-traded’ by other services. Furthermore, a growing literature base of personal representations and perspectives of CYP with dyslexia documents a
continued lack of understanding of what dyslexia is by teachers and peers and the concomitant negative impact on learning and peer relationships including incidences of name calling, bullying and being ‘punished’ for being dyslexic (either directly or indirectly) (Riddick, 1996; Edwards, 1994; Ingesson, 2007). The link between dyslexia and subsequent mental health issues has been extensively documented (Schulte-Körne, 2010). EPs are ideally positioned to contribute to the dyslexia debate by encouraging and listening to ‘pupil voice’ (McLaughlin & Rafferty, 2014) and through reflection on their own attitude, knowledge and skills in this area may challenge others’ assumptions about dyslexia whether it be on a systems, group or individual basis. For a dyslexic pupil, who may already experience repeated failure in the high literacy demands of the school environment, the extent to which professionals understand their difficulties may ultimately predict academic success or failure. However, aside from anecdotal information, there is currently little or no systematic literature that examines the experiential and contemporaneous perspectives of EPs with regard to dyslexia internally or externally to the context of LA traded services. The current government’s substantial reforms for services to CYP and the Special Educational Needs and Disability (SEND) system present a timely opportunity to review the role of the EP in educational practice and dyslexia.

The aim of the study was to explore EPs’ current attitudes, knowledge of and practice around literacy learning and dyslexia. Given the two main objectives, namely to investigate both theoretical and practical aspects of the issue, this led to the development of three research questions.

**RQ1:** What theoretical models and definitions underpin EPs’ understanding of dyslexia?

**RQ2:** What factors impact on EPs’ beliefs and practice in the area of dyslexia?

**RQ3:** What do EPs actually do in practice in terms of assessment and intervention planning for pupils with dyslexia or dyslexic-type difficulties?
METHOD:

Epistemological Position

The researcher considered that a critical realist stance (Archer, Bhaskar, Collier, Lawson, & Norrie, 1998) best encapsulated the research questions in that they were concerned with incorporating the individual experiences of EPs, the meaning they give to them and a consideration of the wider social context. Braun and Clarke (2006) described this as ‘contextualist’ lying between realist and constructionist paradigms. In other words, critical realists retain an ontological realism, i.e. there is a real world that exists independently of our perceptions, theories, and constructions while accepting a form of epistemological constructivism and relativism in that our understanding of this world is inevitably a construction from our own perspectives and position (Frazer & Lacey, 1995). Thus, all theories about the world are seen as grounded in a particular perspective and worldview, and all knowledge is partial, incomplete, and fallible (Willig, 2005).

Research Design

The research attempted to describe how EPs conceptualise dyslexia and delineate what they do with regard to assessment and intervention. It explored how EPs’ beliefs about dyslexia and the wider social context impact on practice. The study was exploratory in nature and utilised a case-study design consisting of three phases. Recruitment strategies for all phases comprised discussions with staff and affiliates at Manchester University and contacting various LA EPSs in the region. Any EPs expressing interest were contacted to discuss the possibility of participation.

Phase One of the research involved convening an ‘expert’ focus group to identify key themes to help formulate interview content for Phase Two. The purpose of the focus group was to collect the ‘experts’ views on dyslexia and ideas on how to formulate the interview questions to encourage the EPs involved in the case-studies to think about how they conceptualise dyslexia. There were structural similarities between this design and that of the Delphi technique. The Delphi technique is particularly useful in areas of limited research, since ideas are generated from a knowledgeable participant pool (Hasson, Keeney, & McKenna, 2000), and is suited to explore areas where controversy, debate or a lack of clarity exist. While the process followed a systematic and structured format, it was also an open and
emergent discussion (Finch & Lewis, 2003) yielding interesting insight in supporting the researcher to answer the research questions.

Phase Two consisted of piloting and refining the interview questions with one EP for the third and final stage.

Phase Three comprised five semi-structured interviews with EPs. Although the method of data collection (interviews) is generally pitched at the idiographic level and typically uses one or two participants for more interpretative methodological approaches (Larkin, Watts, & Clifton, 2006), guidelines for sample sizes for TA studies range from 10 to 60 interviews for data saturation to occur (conceptualised as the point in data collection and analysis when new information produces little or no change to codes (Morse, 1994; Creswell, 1998). However, Guest, Bunce & Johnson (2006) found that 73 percent of codes in their study were identifiable within the first six transcripts and 92 percent in the following six. Given that the study involved a relatively homogeneous sample, and recent peer reviewed journal articles using TA have based their findings on eight participants (Griffiths, Stenner & Hicks, 2014), it was felt that conducting more than six interviews would not extract further useful data.

Participants were chosen by a combination of purposive and opportunity sampling. Recruitment focused on gaining an equal representation of EPs from different stages of career development, backgrounds prior to training, and EPS model of service delivery as summarised in Table 4. For the purpose of this study, EPs who have practiced for seven or less years were categorised as early career EPs, middle career EPs were EPs who have practiced between 8 and 14 years and EPs who have practiced 15 or more years were classified as late career EPs.
<table>
<thead>
<tr>
<th>EPs</th>
<th>Number of Years in the EP Profession</th>
<th>Experience of Working with CYP prior to Training as an EP</th>
<th>Region Trained</th>
<th>Type of service delivery</th>
</tr>
</thead>
<tbody>
<tr>
<td>EP1</td>
<td>1</td>
<td>&gt;5 years – mixed non-teaching experience with CYP</td>
<td>London</td>
<td>Fully-traded</td>
</tr>
<tr>
<td>EP2</td>
<td>12</td>
<td>10 years as a secondary school teacher</td>
<td>Newcastle</td>
<td>Fully-traded, LA</td>
</tr>
<tr>
<td>EP3</td>
<td>10</td>
<td>18 years as a teacher in a further education setting</td>
<td>Manchester</td>
<td>Partially-traded</td>
</tr>
<tr>
<td>EP4</td>
<td>2.5</td>
<td>3 years as a secondary school teacher</td>
<td>Manchester</td>
<td>Partially-traded</td>
</tr>
<tr>
<td>EP5</td>
<td>15</td>
<td>&lt; 18 years combined teaching and managerial experience in a primary and secondary school setting</td>
<td>Manchester</td>
<td>LA</td>
</tr>
<tr>
<td>EP6</td>
<td>15</td>
<td>6 years working as a primary school teacher</td>
<td>London</td>
<td>Fully-traded, LA</td>
</tr>
</tbody>
</table>

**Ethical Considerations**

Ethical approval was gained in line with the Manchester Institute of Education Ethical Practice, Policy and Guidelines and identified as low risk (PRI-5404006-diss1). Whilst EPs are not generally considered a particularly vulnerable group of people, there is a duty to comply with the ethical principles outlined in the BPS’s Code of Ethics and Conduct (2006) and the Health and Care Professions Council [HCPC] (2012), which includes minimising any risk to participants and safeguarding them during the research process. Particular ethical considerations of the study involved finding ways to engage participants in the dyslexia debate without them feeling threatened professionally. Some practical steps taken comprised 1) providing details of the nature and content of the study and gaining informed consent, 2) providing participants with the questions prior to the interview, 3) reminding participants that they were able to withdraw from the study at any point and without giving a reason, 4) informing participants that they were able to exclude their data from the end product, and 5) providing an opportunity for debriefing and signposting participants for supervision if necessary. Member/s of the expert focus group also volunteered to act in a supervisory capacity. Findings were disseminated/ fed back to each participant either in person or through email. Data were anonymised and stored securely.
Data Collection

Phase One: The expert focus group, consisting of four academic EPs, widely published in the area of dyslexia and other developmental difficulties, convened to generate questions for the interviews. The discussion lasted for one and a half hours and was recorded and transcribed and used to develop interview questions for Phase Two.

Phase Two: The efficacy of interview schedule and questions derived from Phase One was piloted on a practising EP. This interview was recorded and transcribed. No amendments to questions were made (see Appendix H). A decision was taken, therefore, to include this data in the analysis.

Phase Three: A further five face-to-face in-depth semi-structured interviews were conducted to complete the data set. Each of the interviews lasted between 45-90 minutes and were recorded and transcribed.

Data Analysis

Recordings from the focus group discussion and the six EP interviews were analysed using Thematic Analysis (TA, Braun & Clarke, 2006, see Appendix I-J, for examples). The analysis was inductive and iterative by repeatedly returning to the data to check that the emergent themes were accurately reflected and relevant to the research questions. NVivo software provided a continuous accessible traceability of reflections and decision-making throughout the analysis. At each phase, transcripts were member checked for accuracy and to ensure the authenticity of the work. Inter-coder validation was achieved by a supervisor independently cross-checking one interview transcript. Inter-rater reliability was high (95%).

RESULTS:

Each RQ is examined in turn. A summary diagram is presented to provide an overview of the main and subordinate themes relating to each, followed by a discussion of each theme, illustrated by relevant quotes. Although the results are presented this way for the sake of clarity, the extent to which there was overlap and

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7 Each group member was currently practising or had previously practised as an EP.
interdependence between themes and research questions is acknowledged and is exemplified by the linking arrows in the summary diagrams.

**Research Question 1 - Theme 1: Definitions**

All six EPs stated that they followed the BPS definition for dyslexia though some either could not remember it “… *in terms of the BPS one, I am trying to think of it now …*” (EP1) or were confused as to its content “… *there’s also dyscalculia and that brings in dyscalculia in it in many ways to broaden the definition of dyslexia*” (EP2). EP2 mentioned the “… *British Dyslexia Association definition, which as I understand it is the Discrepancy Model.*” The other four EPs cited a number of key elements that, by definition, focused narrowly on the severity and persistency of difficulties at a word level “… *you see … that’s the problem (…) it [BPS definition] tells you nothing apart from that the child has got literacy problems, ‘accurate and fluent word reading’ and I suppose that is my fundamental difficulty with it*” (EP6). EP6 also mentioned that difficulties with reading and spelling should not be “… *purely explainable by general learning difficulties.*” Two referred to the Rose review definition, one the specialist teacher role and four mentioned training and LA or EPS policy as informing their understanding.
Figure 2. RQ1 – Theoretical Models and Definitions
RQ1 - Theme 2: Theoretical Models

The responses to whether the EPs used any psychological or theoretical models to conceptualise dyslexia indicate that no clear and consistent model is adopted. Indeed, their responses suggest a complete absence of psychological models for at least three of the EPs, “I don’t actually think I do. I might do but I don’t know what they are” (EP1); “Well not really, no” (EP3); and “… not explicitly in my practice” (EP4) “… I think I have come so far from hypothesising about dyslexia that it doesn’t pop in to my head” (EP1). EP5 discussed viewing CYP holistically “I would be looking at the whole child, I wouldn’t be focused so narrowly on one specific area … you are not gonna sit there and say ‘I’m just going to apply this theory now.” Only EP2 mentioned “… phonological processing.” This may suggest that either dyslexia is not on the EPs’ ‘radar’ or they do not know about theoretical models pertaining to dyslexia.

Research Question 2 - Theme 1: Values

a) Labels

Of note was the notion of labels, which on the surface appeared to be in line with EPs’ apparent aversion to them “… it comes back to my values for people as human beings and I think sometimes those labels don’t allow us to move and grow and change” (EP1). However, when trying to unpick whether this was a general dislike of labels per se or whether there was something specific about the dyslexia label that concerned them, “I think my reluctance to give a label is because the definition is so woolly and there are no clear cut offs … at what point do I say it is severe and persistent enough to issue a label … It is not clear to me therefore I don’t think I can make that judgment” (EP4). When probed whether this was similar for all ‘diagnosable’ conditions, a different picture emerged. This appeared to be the case for less experienced EPs when asked about their views on the relative ease and regularity with which some EPs use ‘other’ labels (e.g. autism spectrum condition, ASC) “Absolutely, that was my feeling when I worked in my first authority … and that was ASC …” (EP4); “… for me I feel comfortable, and I am being quite honest, about using a label of autism … I am so far removed from using the label dyslexia” (EP1). Although not “… particularly in to labels” (EP5), the more experienced EPs appeared to take a more “… utilitarian view” (EP2) about
labelling “… I also appreciate that you know people do like to have a label and if they like to have a label then I am quite happy to provide that if I feel that it is appropriate to give” and that EP5 considers whether “… the label is going to be supportive to this child or not.” EP6 concurred “I think a lot of educationalists have a problem with labels in general” but “… as a parent it is useful to have that, sort of a hook to hang your understanding on.”

b) Diagnosis

Diagnosing does not fundamentally seem to ‘sit’ well with how the EPs work “… as a profession we have not chosen to diagnose anyone with a condition and that’s the way we are” (EP2). However, there were some individual differences between the EPs: the newer EPs were unequivocal in their answers “… if they want a diagnosis they are not going to get that from me” (EP4); middle years EPs appeared somewhat contradictory in their response “I am not really for or against it” but “… I would only ever do it if I was pushed to do it” (EP3). The longest serving EPs revealed a more conciliatory attitude “I do occasionally give a diagnosis” (EP6); “… [if] he meets criteria [BPS] at that level who am I to say that he is not dyslexic?” (EP5). When asked about some of the issues surrounding a dyslexia diagnosis, the response was mixed “… it is not a diagnosable condition, it is a descriptive term to do with education” (EP2): “sometimes I am expected to give a diagnosis (…) based on the work of other people and that causes (…) me a little bit of concern because the bit that says (…) ‘despite appropriate teaching opportunities’, I am not in control of that” (EP5). EP3 posited that some of the issues around diagnosis stemmed from definitions “According to The Rose Report, dyslexia is on a continuum with no cut-off points. Well to make a diagnosis you need a cut-off point … and if you can’t have a cut-off point I’m not sure how you manage to do a diagnosis”; “if you are following the BPS definition then actually that is more or less stating that anybody can give that diagnosis” (EP5).
Figure 3. RQ2 – Factors that Impact on EPs’ Beliefs and Practice
RQ2 - Theme 2: Definitions

a) Too vague or too broad/ helpful or unhelpful

Several of the EPs referred to the BPS definition as ‘vague’, “I don’t want to be making a medical diagnosis (...) on a very vague definition or a conversation (EP1); “… what would help would be to have a more precise definition of some of these rather more vague terms. So a precise definition of what we mean by severity and how we determine that …” (EP3); “Well it is quite woolly isn’t it … what is severe and persistent …?” (EP4); “… in terms of persistence, what does that mean? How long does it have to go on before you decide it is actually persistent? I don’t know really, and then when you are talking about appropriate intervention, what on earth does that mean?” (EP3).

EPs 5 and 6 highlight the complexities of finding a balance between definitions that are too precise and straightforward “… it [BPS] is a narrow definition … it might be that some EPs are saying ‘well actually the definition is dead easy therefore anybody can give a diagnosis so you don’t need me,” (EP5) and too broad “… [if] you end up broadening the definition (...) it becomes meaningless (EP6). This raised the issue of whether dyslexia is perceived solely as a difficulty with reading and spelling at a word level “What I am dealing with is word reading and spelling, that is the key thing … all these [other] aspects [e.g. working memory, processing speed] are making it vaguer” (EP3) or whether it includes difficulties with cognitive skills underlying literacy acquisition “… the more you meet children with reading and spelling difficulties the more you realise that it is not just about word reading is it?” (EP5); “… there is a lot of (...) professionals who are very confused about what dyslexia is and it is not that we deny that there are children with severe reading and spelling problems it’s just that the definitions are so fuzzy (...) you don’t know what you are getting. So you could get a kid with a dyslexia label and actually their reading and spelling is ok and it is the memory that is the problem … If people understand poor reading and spelling and then get kids who can read and spell but have got a dyslexia label then they start to lose faith” (EP6).

The notion of ‘vague’ definitions presented an opportunity to learn which, if any, of the definitions EPs find helpful “… I mean it [BPS] is helpful in that it
does narrow down exactly what you are focusing on when you are looking at dyslexia ... but it is not useful in that ... there are still quite a lot of vague, subjective elements to the definition ...” (EP3); “… I don’t (...) necessarily find that [BPS] particularly helpful, it’s quite non-descript and quite vague from what I can remember” (EP1); “… for my own practice I find The Rose Report helpful” (EP4); “… I mean it is just at a word level so that is problematic in itself” (EP5); “… as a signpost of what to do I don’t find it useful … [it] doesn’t tell me enough to be able to advise teachers on what to do with that young person and I suppose that is why I don’t find it very useful” (EP6).

RQ2 - Theme 3: Perceptions

a) Unfashionable
The theme of interest was raised during the interviews and revealed a general lack of it in relation to dyslexia from some EPs “…it is not the bit of my job that I am really interested in” (EP4); “… I am probably one of those EPs who is not really interested in dyslexia as we know it” (EP1). Several of the EPs were able to provide context and insight on why this may be the case “Let’s be honest, dyslexia is not a very sexy topic whereas kind of behaviour and social needs are, and they are quite meaty and for me that feels more interesting” (EP1); “… emotional health and wellbeing is sexier you know. The idea of kids with emotional difficulties and I suppose in some ways the idea of helping them, the perception of what they [EPs] have achieved it seems to be greater” (EP3); “… maybe it is just about motivations and passions and interests … EPs don’t seem to be as interested in dyslexia as they are in autism” (EP4); “It is not that none of us are interested in dyslexia it is that it became the remit of the specialist teacher because of the need for intervention over time” (EP6); “… fifteen years ago dyslexia was on everybody’s lips and it is not anymore because there is a kind of view that the capacity is built in school and it should be sorted by the school so it has kind of fallen off the agenda really a little bit” (EP2).

b) Whose role and whose responsibility?
This theme pertained to their general role within the area in addition to the specific role of the EP in diagnosing dyslexia. EP1 was unsure of what an EP could contribute to the topic “… if it was a literacy case I would be highly confused as
to why I’d been brought in.” This drew the conversation into whose role they believed it was to diagnose “The Dyslexia Society, I don’t know (laughing), oh I don’t know …” (EP1). A number of other EPs raised specialist teachers as having a role “I think it is mainly about the role, just cos in my authority we have a different service who deal with it …” (EP4); “If a specialist teacher thought they could do it and they felt they had the skills to do it then I don’t see a problem with that. I suppose the question is then, how far do you go with that? Can an English teacher diagnose it? Can an experienced primary school teacher diagnose it?” (EP3); “No I don’t think it is the role [of an EP], I think it is to outline need” (EP2). However, EP2 conceded that “… it’s a matter of if there are these problems who do they [teachers] ask?”

Three of the EPs considered dyslexia to be part of their role despite the perceived difficulties, “The Rose Report definitively said dyslexia exists … so I think we have to accept that … so if it exists it can be diagnosed, so if it can be diagnosed then I think we have to deal with it … I can’t really see who else would do it to be honest. I think that there is a slight problem in (…) diagnoses are like a medical thing and so you kind of expect a medical professional to give a diagnosis” (EP3); “… I did it this morning” but “I don’t think that an EP should be the only person who can diagnose because you would end up with a bottleneck where you are having to see children in order to rubber stamp something that is obvious to everybody” (EP6); “Is it the EP’s role to give a diagnosis? Yes I believe it is and I think that we have a very (…) important role to play both in the diagnosis and in thinking about interventions that are appropriate to the needs of the young person” (EP5).

The concept of responsibility was also raised “… I am being quite honest about using a label of autism because it is not me that is having to diagnose it, it is the medics that are diagnosing it so it kind of takes the responsibility away from me” (EP1); “I think it’s just about reminding schools that they now have all that money and that is still their responsibility …” (EP1); “I am just saying that our role is mainly you know, identifying need and strength and supporting the adults around the children in turn to support those needs” (EP4); I feel more comfortable with a specialist teacher giving the diagnosis” (EP1). EP5 was more
c) Middle-class parental ‘power’

EP1 appeared to suggest that some school staff only raise the issue of dyslexia due to “… parental power. It is what Lamb talks about, you know parents having power and putting their views across” and that this was especially so “… in areas that were very middle class, parents had a lot of power, good understanding of the system, came from educated backgrounds … parents would want to know what it was and that baggage that the discrepancy model comes with, you know it says ‘that my child isn’t stupid they just have a difficulty with literacy’ … lots of the parents wanted that cos it’s actually you know socially acceptable to have a label of dyslexia … there’s not necessarily the stigma attached with having dyslexia as there is with having a learning difficulty or I don’t know, something else … I don’t think where I work now, especially in the schools I work in now there is that so much. I don’t know that the parents would fully understand what dyslexia was” (EP1).

EP4 described similar perceptions “I had a patch of schools in that authority where there was a lot of pressure from parents” as did EP5 “… we often get parents in areas of wealth requesting dyslexia assessments, and schools find that quite hard to kind of bat off … and so those kind of schools often make referrals or request consultations around that because they have been pushed by parents.” However, EP3 provided an alternative viewpoint “If it is a disorder and it exists and if you have it you have it, and if you don’t you don’t. So actually whether parents want it or not shouldn’t really be a consideration should it?” EP6 empathised with parents “… a lot of parents feel fobbed off I think because at that first meeting they say ‘do you think it might be dyslexia?’ and you have got to say
‘well I can’t say at this point, there is a process and we have got to do some intervention and see how he responds.’”

While EP6 understood parents frustrations, there was an element of scepticism where dyslexia charities were concerned “I mean I have even had kids coming back saying that they are at risk of dyslexia, you know kids who are quite old. They never seem to say that this child isn’t dyslexic. I have never had a Dyslexia Institute one where it says that the child isn’t dyslexic (laughing), there is always something.” EP3 also expressed concerns “… when you get a report from Dyslexia Action, I’m always amazed at how high the IQ scores are … these kids have got huge, massive IQ scores and I always think ‘how’s that?’”

d) Not a priority for schools or LAs
Several of the EPs did not perceive dyslexia as being a priority for school staff “I think schools are reluctant to use us for those consultation conversations around literacy … because essentially they can’t see the product so they can’t see what they are getting for their money” (EP1); “… schools’ main focus is behaviour and its impact on the classroom so therefore sometimes LDs tend to get marginalised” (EP3). A longer-serving EP provided historical context “… it is part of the history of X, we moved to this awful model of individual assessment (which I said they shouldn’t do, I said you have gotta do time not an individual assessment [whispering]). So at that point we just moved in to individually assessing children and it was a piece of work, you did an assessment and you wrote a report and that was the end of the work so any of that kind of intervention over time sort of fell by the way side” (EP6); “… in the past children with a specific learning difficulty, dyslexia, would have got some additional funding. X delegated that budget … to the schools SEN budget, that in itself causes complications because it is how then that budget is used, so you know for instance here in this local authority (…) they no longer applied the criteria for children with behavioural difficulties and for children with specific learning difficulties, and that money that they saved on issuing statements for those two areas of need they delegated the budget to schools …” and so “It might be within this LA we are not going to use our EP time for this because the outcome won’t bring us any additional monies” (EP5).
Teaching literacy and dyslexia is not psychology

EP1 did not perceive that there was a connection between teaching, dyslexia and psychology “I struggle to think about how I am using psychology when I am focusing on literacy or dyslexia ... I came in to this profession to use psychology and to use psychological models, not to be a super teacher ... a very simple literacy case (...) I don’t know what psychology I could bring to that.” In contrast, EP2 made explicit links between teaching and psychology “My lectures on educational psychology in my PGCE were about ... the psychology of skill acquisition and that made me become an EP ... how people learn things, I am so fascinated by that.”

RQ2 - Theme 5: Knowledge

a) Enough knowledge

“I feel like this is probably a weak area for me so I don’t know that my understanding of dyslexia is that great ... I feel quite insecure about when working around dyslexia. I don’t really know what it is still at this point” (EP1); “... if there was a conclusion (...) professionally if this is the right forum to say that, I am due for an update” (EP2); “I don’t feel that I have the skills to talk about literacy (...) that’s not my forte” (EP1). There was a sense that EPs’ knowledge (or lack thereof) of dyslexia was revealed in a more nuanced way throughout the conversations, for example the notion that dyslexia is developmental and as such it may look different at different ages “… I haven’t really thought of it ... about it at secondary school and onwards in to adulthood” (EP1); the importance of a diagnosis for many CYP “I know circumstances where ... actually having a diagnosis helps not just with their own perception of the problem but also with other people’s perception of them, it seems to make a difference. I wonder what that’s about?” (EP3); interventions “So I will often refer teachers to the ‘What works?’ book, I can’t remember who wrote it? ... I was going to say Brown” (EP1); “… what I used to recommend is a programme that follows that principle you know the sequential, accumulative, evidence base and what is the other one? There is a fourth principle, I can't remember what it is. Systematic, that’s what it is. Or is that the same as sequential?” (EP4); and how dyslexia can affect CYP “Children with that profile often have anxiety and I don’t know why …” (EP6).
b) What or who informs knowledge

The interviews revealed a number of subordinate themes which focused on what or who informs knowledge about dyslexia. For example, EP1 mentioned initial EP training “… we didn’t have any dyslexia training per se.” Similarly EP 4 stated “… what has also informed my understanding is the training that I received, on the course we did quite a bit on dyslexia and literacy difficulties.”

EP 2 and 4 raised “… authority policy (…) procedures and protocols” in addition to working with others “… team meetings and supervision as an EP within the first five years of practice (…) it was not uncommon for the specialist teachers to bring research that they have thought they would like the educational psychologists to be aware of” (EP2); “… my colleagues and not just formal supervision but informally, asking what (…) their experience is of dyslexia has really contributed to my understanding” (EP4).

The issue of whether EPs’ roles prior to training impact on knowledge was also raised and specifically whether coming from a teaching background was an important factor “… it might be that some EPs because they haven’t come from a teaching background, feel less secure in terms of delivering around dyslexia” (EP5). Five out of the six EPs came from a teaching background. However, in general, the EPs did not feel that this was a significant influence “My teaching didn’t really give me much insight in to dyslexia” (EP3); “My view is that as long as they have received appropriate training it shouldn’t make a difference” (EP4). However, there was some acknowledgement that being a teacher brought a level of appreciation of some of the constraints “… I haven’t forgotten how very difficult it is to juggle the competing needs of the children in class” (EP5); “… what is probably useful about being a teacher and not being another thing before I became an ed psych is that I have some level of understanding of what it is like to be a classroom teacher and how very difficult it is to meet individual children’s needs … I suppose it is more about understanding the nature of the role and the constraints of the role rather than anything brilliant I did when I was a teacher” (EP6). EP4 was unsure “… I agree I think it is important but I am not sure, that is a hard question. I am not sure it is because of my background as a teacher, I
think that has come from the training course. You know I understood it before but yeah I don’t necessarily think it is because of my role as a teacher.”

In contrast EP2 provided strong views of the importance of a prior role in education “My fear is that it will fall off the agenda because you won’t have people who have taught reading and writing. Those fundamental skills. How can they? … you know if I was interviewing for an EP I would be going ‘Have you ever considered that?’ ‘What is your knowledge base of that?’ because you would want an EP to have a bit of an understanding of the mechanics of teaching … we are talking about putting the educational in psychology … If the emphasis of the course is on the emotional well-being of the child and how it functions within the context of the family and the school and the attachments and all that, it’s a different emphasis that isn’t it?”

EP1 who was “not from a teaching background” admitted to feeling “… a little bit nervous around things such as dyslexia and literacy … I can’t do that, I don’t know how to do that” but that this was not necessarily “… a bad thing, I think that makes me think about and question what I am doing all the time and so that is quite positive and I don’t presume that I know exactly what to do and what is happening which makes me research these areas a little bit more.” However, prior to this EP1 had stated “… I feel that from the evidence and from the research and from my training I don’t have a clear understanding of it.”

Research Question 3 - Theme 1: Assessment

The EPs were asked to recall a recent piece of casework in which dyslexia was hypothesised as the main or major contributory factor in the pupil’s difficulty. With regard to assessment, emergent themes were divided into those specific to literacy or dyslexia and ‘other’ types e.g. consultation and a strengths and needs approach.

EP2 reported that “I do usually do the WIAT and that helps me with target setting … [the] PhAB … and National Curriculum levels”; “I would want to do (…) some assessments of their word reading and spelling. I’d also probably do some assessment of their phonics. I would want to know what sort of intervention they’d had … I’d want to know what it was and how much progress the child had
made, that would be it I guess” (EP3); “... I think I might have done the Hedderly one” (EP4). EP6 stated that “... I hate the WIAT but I do find it quite useful sometimes in understanding where a child’s difficulties are in literacy ... the YARC which I think is a nicer assessment to do. Sometimes I will just take their word for it with the reading and spelling information that they give me from school and just try to pinpoint causality ... I sometimes do the diagnostic extra tests but yeah it is difficult.”

EP1 reported exploring “… developmental history. So looking at kind of milestones, language ... areas of strengths ... concerns from the parents and from the staff will help give some indication of if there are underlying things, you know is it working memory? ... school attendance levels, so you know have they always been in school? I don’t know, did they go abroad for a year of schooling? So, where have they been schooled? What ways have they been taught? ... some gentle questioning of the teacher about her approach, you know not questioning her and making her feel uncomfortable but just looking at the ways she approaches teaching and around that.” Only EP4 mentioned collating “... pupil’s views on their difficulties” during the assessment process.

EP5 suggested that “… doing a spelling test ... wouldn’t be useful to me” unless in the “… context of their everyday curriculum” and that “I am not really keen on the dyslexia screening assessments.” Instead EP5 would rather take “… a holistic view of the pupil’s functioning” and “… a cognitive assessment, I would take a sneaky peak at the discrepancy between their overall ability to learn and how they are functioning in terms of their achievements, their literacy and numeracy and I would look at (...) how those difficulties are impacting on that child’s ability to learn across the board. I would have the conversations with school staff about (...) what they are doing and how they are doing it.”
Figure 4. RQ3 – Assessment and Intervention
A number of EPs mentioned assessing CYP with dyslexic-type difficulties if ‘other’ behaviours were present, for example EP1 mentioned using “… very basic informal reading assessments, cognitive assessment” but with the purpose of arguing “… with the school to say ‘look at how extreme his anxiety is’.” EP3 spoke about the relationship between difficulties with learning and social and emotional issues “… One of the things I come across a lot is where the main issue identified by school is behaviour or social/emotional issues but actually when you investigate it a little bit more actually underpinning that is very often learning difficulties of various kinds including literacy difficulties … one of the things I consistently notice in relation to LDs … is that it does almost always lead to some low self-esteem at some point … I rarely see a case where a child has or there isn’t a self-esteem issue … it can take a bit of time before it kicks in, but it usually does at some point.”

RQ3 - Theme 2: Interventions
EP1 indicated that increasing CYP’s motivation and self-esteem would result in improved literacy skills “… working on his motivation and his view of himself, and then the (...) reading, writing and literacy will hopefully follow on” (EP1). EP2 admitted that “… I have not done anything. I have gotta be honest because for most of my career I worked with a specialist teacher so … I would ask for their input and for them to work with the TA to provide a programme and to advise.” EP6 stated that she would not get involved unless “it’s got to be intervention over time which stands by specialist teaching terms.” However, both EP2 and 6 mentioned specific programmes “… like Nessy, Beat Dyslexia, Toe by Toe or Read Write Spell” (EP6), and frameworks “I suppose that is what the MULP did quite well, it did tell teachers and sort of hold their hands through an intervention (EP6).

EP4 could not “… remember the specific intervention that I recommended but there is a literature review of appropriate programmes and I think I looked at that and took some information out of that, or I might have just directed them to the paper rather than getting into recommending any specifics.” EP3 conveyed that “… how we deal with it I don’t think it is very clear” and consequently he did not do “… a lot really is the honest answer … we talk about what sort of
interventions they might use but on the whole we’d probably be limited to what
the school already have on the shelf ...” EP3 elaborated “if I diagnose a child with
dyslexia probably the intervention I would suggest would be no different to if I
hadn’t made the diagnosis.” However, EP3 acknowledged that “… judging
whether an intervention is appropriate or not is just really difficult to do. In some
ways you don’t know whether the intervention is effective until you’ve tried it and
if it hasn’t worked then it’s not appropriate but then perhaps that’s a reflection of
their persistent difficulties” or “… how schools have done it. Do they do it
regularly? Is it a bit ad-hoc? Is the person who is actually delivering it any good
at delivering it?”

EP1 and 3 mentioned Precision Teaching (PT) “I often like to talk about
Precision Teaching and schools don’t often know what it is so it is about offering
them training around that and explaining to them actually they’re the teachers,
they know the approaches that work” (EP1); “I often talk about Precision
Teaching in relation to skills but the school’s ability to apply that is quite variable.
It often amazes me … actually they have no clue what it is but they’ll say they do
and often we’ll agree that they’ll do Precision Teaching and when you come back
and review it they haven’t done anything like that so the problem is your ability
to actually influence the intervention is quite limited” (EP3).

EP5 discussed the need for early intervention “… my mantra is always kind
of early identification …” and the ramifications of failing to do so “I think the sad
thing is that [a] young person has been allowed to get to that age and not
necessarily had the appropriate interventions and also they have not been
sustained.” EP5 also raised the importance of age-appropriate interventions,
tailored to the needs of the CYP “I often see young people in year six still being
given Oxford Reading Tree and I’m thinking ‘oh my goodness me, no, no, no, no’
and the young people themselves are thinking ‘how many more times am I gonna
see this book’? or ‘how many more times am I gonna have to go through initial
letter sounds’? EPs need to help schools understand that we need to be a little bit
different in our approach to the young people when they are getting a little bit
older and actually you know, you put an Oxford Reading Tree in front of a year
six child and actually why are you surprised that they are flinging it? You know, why are you surprised that they are stomping off outside the classroom?"

**DISCUSSION:**

By its very nature, this study is limited in its size and scope. Using as it does only a handful of participants, albeit with differing levels of experience, it is inevitable that the small sample size limits the generalisability of this study’s results and may not reflect the views and practice of the wider EP population. Nevertheless, it is felt that the interviews have provided some interesting insights into EPs’ knowledge, skills and attitudes towards dyslexia which are relevant to current EP practice and highlight areas worthy of further research.

The research aimed to investigate three areas:

- Theoretical models and definitions underpinning understanding of dyslexia;
- factors impacting on EPs’ beliefs and practices in the area of dyslexia;
- actual EP practice in terms of assessment and intervention.

In summary, the findings suggest that:

- The BPS definition appears to remain central to EPs’ understanding of dyslexia although it seems to add to their general confusion about the topic;
- this lack of clarity perhaps reinforces EPs’ ‘world view’ of dyslexia;
- these factors culminate in the very narrow range of actual practice described by the participant EPs.

Discussing the findings from this study in light of contemporary studies is somewhat problematic due to the lack of any recent research exploring EPs’ perspectives on dyslexia. However, one notable exception by Coman (2013) found that the most frequently expressed viewpoint by EPs was that they favoured the BPS definition of dyslexia above any others. Notwithstanding the definition contributing to some confusion, the EPs reported that it was not necessary to further theorise about it as action around dyslexia was more important than the definition itself. In other words, issues over the definition appeared not to be impacting on the EPs’ practice in the area other than a lack of reference to the word ‘dyslexia’. In contrast,
the findings from this study suggest that the EPs’ opinion of the BPS definition is that it “…makes it very difficult to actually determine whether somebody is or not dyslexic” (EP3) and provides a reason to not “…get involved in dyslexia cases” (EP4) at least for the beginner and middle career EPs. The methodological approaches used in the two studies may account for some of the differences found. Coman (2013) used Q Methodology in her study, which involved selecting pre-prepared statements that most closely reflected the EPs’ views but did not allow for their perspectives to be elaborated on. However, data collated from follow-up interviews with three EPs were more aligned with the findings from the present study in that they revealed that the BPS definition was not especially helpful for them (in that it is too broad) and that they experienced confusion with the different terms used.

Regan and Woods (2000) recommended that it would be helpful to track the impact of the DECP dyslexia framework both for EPs and other professionals, particularly with regard to their understanding of dyslexia, psychological assessment and SEN. Since its publication in 1999, it can be assumed that EP practice and thinking will have been influenced by the prevalent use of the BPS’ definition within the profession as well as in some educational and legal (e.g. tribunal) contexts. However, the definition is now 17 years old. If the EPs in this study remembered particular elements of the BPS definition, it only seemed to add to their confusion “I think ed psych’s would feel less confused and uncomfortable if it was very clear” (EP6). They appeared to ‘pull out’ the actual wording of the definition without the context “accurate and fluent word reading and spelling despite appropriate intervention and learning opportunities” (EP4). This suggests that the EPs herein may not understand that the working party tasked with writing the ‘Yellow Book’ chose to focus on a behavioural level description relating purely to reading and spelling in an attempt to simplify and clarify EPs’ understanding about dyslexia to avoid the contentious area, echoed so much in the current debate, of what constituted an associated difficulty and what did not. As such, it appears to have inadvertently reduced the need for evidence-based psychological models to underpin understandings and compounded EPs’ views that dyslexia is socially constructed “… it’s a construct isn’t it? (EP2) and not the result of the interplay of multiple genetic and environmental risk factors. Indeed the EPs seem to have
managed to ignore a whole body of evidence in that they do not necessarily consider dyslexia to be a neurodevelopment ‘disorder’ as classified by DSM–5 (APA, 2013) “… the failure to read and spell is ‘simply’ dyslexia rather than there is some brain based difficulty that is causing the problem to read and spell” (EP6). However, examination of the ‘Yellow Book’ reveals that relevant research available at that time was reviewed: it was just not used to ‘frame’ what dyslexia is.

What does appear to be absent both from the Yellow Book and the EPs’ perceptions is any emphasis on the developmental nature of dyslexia (Goswami, 2003), which suggests what may be needed is an updated ‘Yellow Book’, which adopts the latest levels-of-analysis framework to encapsulate the current understanding of developmental dyslexia’s aetiology, brain bases, neuropsychology, and social context (Peterson & Pennington, 2015). Operationalising the definition of dyslexia, however, is likely to remain contentious and difficult.

The lack of clarity, knowledge and understanding around some of the fundamental principles of what dyslexia is or is not appears to contribute to the misunderstandings surrounding certain issues (e.g. the essential insights of the Lamb Inquiry, 2009), and may make it more likely that EPs’ ‘world view’ about dyslexia will be reinforced. The key messages derived from the data appeared to reinforce the following perceptions:-

- Dyslexia is much to do with middle-class parental pressure;
- Dyslexia is a medical ‘within-child’ model, we (EPs) do not do that nor do we diagnose;
- To label or not to label?;
- Dyslexia (or literacy difficulties) is not psychology;
- Dyslexia is not complex nor is it as interesting or relevant as social, emotional and mental health (SEMH) issues;
- It is not our responsibility, there are others who deal with it.
One would expect the findings demonstrating the neurobiological signature for dyslexia to be emancipatory for those CYP with dyslexia (e.g. Colker, Shaywitz, Shaywitz, & Simon, 2013). However, Riddick (2000) asserts that as evidence for a cognitive and biological basis to dyslexia has increased (albeit in interaction with environmental factors), professionals’ ambivalence to dyslexia has deflected their argument away from denial to criticising the way that the label is used by parents, especially those with a “… good understanding of the system, from educated backgrounds” (EP1) and lobbying groups to identify and support children (Riddell, Brown, & Duffield, 1994). The data from this study concurs “… we often get parents in areas of wealth requesting dyslexia assessments” (EP5). Riddick (2006) suggests that what some educationalists essentially object to is parents asking for a previously unmet need to be met. It is hard therefore to understand the illogicality of EPs’ perceptions, articulated within the same statement e.g. “So there was a pressure, parents would want a diagnosis of dyslexia because for them it could help them understand their child and their needs” (EP1). It is difficult to comprehend why parents wanting to know what they and school can do to help their children is such an issue. Riddick (op cit) questions why criticism is aimed at parents and not at schools or professionals for failing to identify and support dyslexic learners effectively.

This seems especially pertinent in areas of social deprivation where schools have CYP with dyslexia “… but it’s not the key concern, they tend to ask for our involvement with the kids who have dyslexia and they have got cognitive difficulties and they have got behavioural difficulties and their home life is really difficult and so on” (EP4). This raises several points. Firstly, most of the EPs did not appear to see the links between poor reading outcomes and the many sequelae of poverty8 (e.g. lower educational achievement, higher school dropout rates and greater SEMH issues). EP3 highlights this by reporting that “… there is only me in the cognition and learning strand … you know emotional health and wellbeing is the major thing and everybody wants to be involved in that.” Secondly, CYP from more socially disadvantaged backgrounds appear doubly disadvantaged in that

8 Data from a variety of sources suggest that socioeconomic status (SES) is not the only factor affecting reading outcomes (Seidenberg, 2013), thus suggesting that research into neurodevelopmental explanations of literacy difficulties is warranted.
parents “… who have any level of social deprivation who have not quite got those skills will actually lose out again because they don’t know what is available” (EP5). Finally, given that there is currently no politically acceptable plan to substantially reduce or eliminate poverty (Seidenberg, 2013), addressing literacy difficulties is a key first step in beginning to overcome some of the related factors that lock individual CYP into a cycle of disadvantage. EPs are ideally placed to have a greater impact on literacy than on socioeconomic factors which are outside both the control of the individual CYP and the EP. As Bird (2015) posits, there are far fewer prospects for those CYP and adults who struggle to read and write9, whereas “… get behind literacy and you get behind social justice and social opportunity” (godoseebuy.com/2015/06/22/your-bits-com-article-title).

The EPs interviewed did not seem to be aware of the inconsistencies in their approach. For example, all the EPs mentioned the importance of listening to parents “… you know what does mum want?” (EP5); “I think it depends on what parents want to get out of the involvement” but “… we just don’t give labels, that is not the role of the EP” (EP4). This is despite the diagnosis of dyslexia and ownership of the label being more important for CYP’s self-esteem than factors such as the effect of teachers or peers (e.g. Glazzard, 2010). This poses the question as to whose voice EPs represent and to whom do they have a responsibility. Implicit in the data is the notion that EPs have a responsibility to listen to CYP and their families but are less inclined to do so if it is incongruent with their personal ideology. This, in turn, raises the issue of ‘fit’ with the Code of Practice in terms of giving parents and CYP choice and control over support (Department for Education, & Department for Health, 2014).

Similarly, many of the EPs did not appear to be aware of the contradictions in their views on labelling and diagnosis. “I wasn’t opposed to getting involved in the tripartite assessment [of ASC] because I felt that as EPs we can actually give a lot to that process.” EP6’s insight into why some EPs appear more comfortable with certain labels (i.e. ADHD, ASC) over others was particularly illuminating “… because we don’t have to diagnose them (laughing).” Therefore if school staff

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9 And the frequently co-occurring difficulties with working memory and processing speed.
“… don’t tend to ask us for our involvement for their dyslexic children” (EP4) “… because they have more complex cases to consider” (EP5) and EPs are “… fine to give this diagnosis but not that diagnosis” because they “… don’t even think dyslexia exists” (EP4), it raises the issue of where CYP with dyslexia-type difficulties go for support. Given the limited alternatives, charities such as Dyslexia Action provide one such avenue, though anecdotal evidence suggests that many families can ill afford the money for a private assessment but do so out of desperation. However, the EPs interviewed did not appear to be aware of the dilemmas CYP and families may face. Instead they appeared to view the work of charities with some degree of suspicion “… it is like they (Dyslexia Action) are justifying the money so they are finding some sort of problem.” Collectively, this suggests that CYP and their parents are a disempowered demographic.

Whilst the EPs in this study initially gave well-rehearsed narratives (possibly unconsciously) of why they do not label, diagnose or ‘do’ dyslexia, more plausible explanations may lie in a lack of knowledge, “I feel very uncomfortable giving a diagnosis of something that I don’t know what it is” (EP1), combined with its complexity, “It is really complicated that’s why EPs avoid it really” (EP3), not wanting the sole responsibility of diagnosing “… what if I am wrong? … I don’t feel I know the research well enough to make that decision”, and a definition that does not have “… sufficient teeth” (EP6).

What also emerges in the interviews is a recognition by some EPs that they should/could know/do more but they do not know where to start. It appears that initial training input does not help nor does attending some conferences. “I have been to a couple of conferences where Snowling, I have forgotten her first name, had spoken and I have found it particularly academic … maybe put me off a little bit” (EP1). Having previous experience as a teacher also appears largely irrelevant given that many teachers beyond Key Stage 1 are not involved in teaching children how to read and that research highlights the many complexities of doing so (e.g. Gallant & Schwartz, 2010). Moats (2014) suggests that teachers are often poorly

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10 An up-to-date assessment is also required in order to apply for support at higher education (i.e. to apply for the Disabled Students Allowance).
11 Although the idea that dyslexia is not complex is alluded to throughout the interviews.
prepared to understand the scientifically grounded concepts of reading and
difficulties with its acquisition. Moats’ research over the past 20 years (e.g. 1994,
2014) has systematically highlighted the absence of the psychology of reading,
cognitive development, language acquisition, or the structure of language (spoken
or written) in initial teacher training programmes.

The aforementioned issues are reflected in the very narrow range of actual
practice described by the participants. Assessments, for the most part, seem to be
summative (e.g. cognitive). Although brief mention is made of the PhAB and “basic
reading assessments” (EP1), there is no indication that any are used to inform
interventions. Whilst several of the EPs raised concerns about determining if
children’s learning opportunities have been appropriate in order to determine
whether difficulties are of a dyslexic-nature (i.e. persistent), they made no reference
to interventions being bespoke, other than PT. ‘Off the shelf’ packages were
mentioned but responsibility for interventions seems to be left to school staff thus
creating a vicious cycle, i.e. relying on ‘others’ for interventions but then not willing
to give a diagnosis precisely because the latter is dependent on knowing about the
former. Bangerter (2002) has argued that EPs appear not to challenge whether
interventions are sufficiently tailored to the specific individual.

There is no mention of consultation and joint problem-solving, ‘plan-do-
review-learn’ cycles and ‘extra to and different from’ in the data set. There is,
however, a noticeable perception by the EPs that working on CYP’s self-esteem and
motivation will ‘fix’ their literacy problems “… things around his motivation …
that really jumped out to me … so it is about let’s target that and hopefully it will
have a knock-on effect” (EP1). Whilst it is acknowledged that such factors are
important, it seems unlikely that an improved level of motivation on its own will
somehow enable an illiterate pupil to master basic literacy concepts and skills
previously beyond him/her. The interrelationship between emotional factors and
learning is complex. While a review of such theories is beyond the remit of this
thesis, research suggests that particular attention should be given to motivational
influences much earlier in a CYP’s school experience (Carlton & Winsler, 1998).
Reading interventions to foster mastery motivation\(^{12}\) should be challenging relative to a child's own developmental level\(^{13}\) and not at a level selected as generally appropriate for the child's age (Morgan, Harmon & Maslin-Cole, 1990). Those responsible for interventions require not only the necessary content knowledge in the area of literacy development to enable them to understand the developmental continuum but what causes the breakdown, how skills can be developed, and what alternative routes can be taken to circumvent the problems all within the historical and cultural environment of the home and school setting. Who is better equipped than EPs to apply their knowledge of child development and unique psychological expertise to this domain? Perhaps the issue relates to the fact that some EPs may not demonstrate sufficient content knowledge to take on this role. Indeed, Gwerman-Jones and Burden (2009) suggested that EPs’ ability to recognise and deal with the difficulties associated with dyslexia is affected by their knowledge about (and attitudes towards) those difficulties.

Studies in the US which have investigated school psychologists’ familiarity with and use of empirically-supported intervention practices revealed similar findings with 56% of respondents disclosing that their knowledge of scientific research-based interventions for CYP with reading problems was either ‘low’ or moderately low’ (Nelson & Machek, 2007). In the UK, Brooks’ (2013) review of ‘what works’ for CYP with literacy difficulties dedicated only a very small section to dyslexia, which may indicate a reluctance in viewing dyslexia as qualitatively different to general literacy difficulties or a lack of evaluative information on specific methods for CYP with dyslexia which has been identified as a rather under researched area (e.g. Riddick, 2006). Furthermore, recent reforms to SEND services prioritise having the right support at the right time (Department for Education & Department of Health, 2014). Failure to do so can lead to CYP with dyslexia being described as “three time failures” (Montgomery, 2012, p.3), in that initial teaching methods have failed them, in-class support has failed them and so has more specialist learning support (in the form of Wave 3 interventions). She questions

\(^{12}\) Defined as a “psychological force that stimulates an individual to attempt independently, in a focused and persistent manner, to solve a problem or master a skill or task which is at least moderately challenging for him or her” (Morgan, Harmon & Maslin-Cole, 1990, p.318)

\(^{13}\) An ‘individually challenging’ task is one which is easy enough for the CYP to demonstrate some degree of success but sufficiently difficult that it cannot be completed in a short period of time.
whether a system that has already failed dyslexics is still suitable for remediation and whether reading is the core difficulty in any case.

Summary
There appears to be a number of factors impacting on EPs’ perceptions of dyslexia and their practice depending on the number of years in the profession. The longest-serving EPs provided practical and political contexts for not ‘doing’ dyslexia (rather than not wanting to) whereas middle-years EPs presented as being in a state of ‘liminality’ (i.e. belonging to neither one state nor the other) in that they have a grounding in dyslexia and acknowledged the need for EP input but appeared to be affected by current debate and by their colleagues’ perceived lack of interest in the field. As the interviews unfolded and the EPs were challenged about their perceptions the general discourse changed more towards a concern about dyslexia falling off EPs’ radars “If you don’t raise the profile of things they drop off the bottom of the agenda (…) I think that most EPs would find it very useful to find reflections on this by one of their own … so that is where the specialist EP comes in and goes ‘… I have read this and I have done this and I can relate it to research that has been done’” (EP2).

Newer EPs seemed not to associate psychology with dyslexia, which may (or may not) be a result of an amalgam of the content and nature of input during their initial training, current dyslexia debate and little opportunity to observe more experienced colleagues working in the field of dyslexia. Both the newer EPs expressed an interest in a collaborative response from their respective EP services, a theme which was echoed in Coman’s (2013) research who speculated that equality of access and opportunity for some CYP is at risk of being undermined without an agreed understanding among EPs and their services of what is meant by the term ‘dyslexia’. One also imagines that a lack of consensus and shared understanding around the subject are not particularly helpful for trainee EPs. Furthermore, the type of research EPs read adds little to their current understanding and body of knowledge “I don’t read a lot of research on this in ‘Educational Psychology in Practice’ but are EPs doing research in dyslexia still? You must be one of the rare breed that are in my view … do universities have a role in promoting an awareness of literacy in training?” (EP2).
This empirical study has suggested that some EPs are confused about their approach, as professionals, to dyslexia. It may also be that a lack of confidence or content knowledge about dyslexia manifests itself as a lack of interest. Given the potential impact of dyslexia on the education, life chances and psychological well-being of those CYP affected, it would appear apposite and timely for the profession of educational psychology to engage in an open and reflective debate about core theoretical beliefs and practice in this area.
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SECTION ONE: Evidence-based practice and practice-based evidence

“If the science is so advanced, why do so many people read so poorly?”
(Seidenberg, 2013, p.331).

Delivery of evidence-based psychological formulation and intervention by appropriately trained professionals is seen as best practice for UK and wider psychological service delivery (e.g. APA, 2006; Australian Psychological Society, 2010). Keeping abreast of new developments is therefore crucial to best practice. Given the enormous and contemporaneous contribution of cognitive science and neuroscience to the study of reading and dyslexia, Seidenberg (2013) speculates that we could and should be making better use of what we have learned about literacy and language.

Roberts and Norwich (2010) in the UK and Compton, Miller, Elleman and Steacy (2014) in the US point out that substantial investment in national literacy programmes, which are generally not grounded in a sound research base and lack systematic evaluation, have had minor impact. Tymms and Merrell (2007) argue for policies to be much more closely tied to research evidence and that strategies should be “trialed and scientifically evaluated before introduction on a national basis” (p.1). Moreover, Norwich (2005) amongst others (e.g. Lindsay, 1998) argue that practicing EPs should be central to research in the field to address local and national policy from an evidence-based perspective.

Despite this “clarion call” for EP involvement (Roberts & Norwich, 2010, p.279), the significance of evidence-based practice (EBP) to EPs (e.g. Gulliford, 2015) and the “nascent” movement towards EBP in education (Hempenstall, 2014, p.1), the EP’s role in the identification and remediation of dyslexia continues to be problematic (Long & McPolin, 2009). This may be due to confusion over causes,

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14 In addition to a host of other school improvement initiatives.
definitions and terminology (DECP, 1999) and the broader context of the social model of disability, labelling and the medical conceptualisation of dyslexia, and ongoing arguments by some (e.g. Elliott & Grigorenko, 2014a) that rest considerably on ‘there is no evidence’ statements which appear to compound EPs’ perceptions of dyslexia being a ‘myth’ (Elliott, 2008) or cultural meme (Elliott & Grigorenko, 2014b). From an EBP viewpoint, such claims require considerable evidence which, if left unchallenged, serve only to amplify confusion and contention.

The practice of evidence-based psychology involves integrating individual professional ‘expertise’ (i.e. knowledge and experience) with the best available external psychological evidence from systematic research to minimise error in psychological formulation and concomitant intervention (Sackett & Rosenberg, 1995). Sackett, Rosenberg, Gray, Haynes, and Richardson (1996) make reference to individual clients’ rights and preferences in the decision-making process and the APA adds “patient characteristics” and “culture” to their definition to provide context (APA, 2006, p.273). In simple terms, EBP is the integration of science and practice to inform practitioner ‘beliefs’ about, for example, what may or may not ‘work’. While the philosophy underpinning EBP allows for ‘beliefs’ to be drawn from several forms of evidence (Bower & Gilbody, 2010), there exists a hierarchy or ‘top down’ approach which places the most rigorous scientific research (e.g. ‘gold standard’ randomised controlled trials [RCT]) above less exacting forms of research (e.g. personal clinical experience, opinions of ‘experts’) (Scott, Shaw, & Joughin, 2001).

The idea that education should be or become an EBP and that educational psychology should be an evidence-based profession came to prominence in the UK more than a decade ago (e.g. Biesta, 2007). If EBP in education is perceived as important, why then has there been a good deal of resistance in some quarters? For EPs, its medical roots, emphasis on RCTs (and concerns about how this transfers to real world settings, e.g. Frederickson, 2002) coupled with the nature of the general discourse, e.g. practitioner as ‘expert’, and the increasing array of social and educational phenomena now described and understood in medical terms (Frawley, 2015), may make it appear somewhat antithetical to educational psychology philosophy (Chwalisz, 2003). Moreover, Biesta (2007) suggests that EBP may
restrict opportunities for EPs to make professional judgements in educational settings. Consequently, the concept of practice-based evidence (PBE) (a ‘bottom-up’ approach) has been raised as it may be more aligned to EP practice (Nuttall & Woods, 2013) given that the social and political contexts in which EPs work may impact on their ability to implement certain aspects of EBP (Reason & Woods, 2002).

From a teaching perspective, Slavin (2013) has identified four barriers which may threaten the successful introduction of EBP into educational practices. These comprise 1) a lack of rigorous evaluation of promising programmes, 2) inadequate dissemination of evidence of effectiveness (and conversely ineffectiveness), 3) a lack of incentives to implement proven interventions, and 4) insufficient technical assistance for implementing evidence-based interventions with fidelity. EPs are ideally placed to support school staff in overcoming all four barriers.

However, some elements of PBE are compatible with EBP: both require professional ‘expertise’ and upholding clients’ rights and preferences. Fox (2011) describes PBE as requiring psychologists to be “… as much artists as they are scientists” (p.328) but warns that viewing EPs as ‘artists’ creates the potential for them to attach their own validity to “naming and framing” (p.328), based on their interpretations or values. This, Fox (op cit) suggests, could be problematic if the CYP, parent, teacher or professional occupy a different position thereby rendering the EP’s approach as potentially “meaningless” (p.329) to the CYP (and other stakeholders). This questions what informs EPs’ ‘expertise’ (and how do they guard themselves against ideological-driven practices) and how far clients’ preferences are upheld if their beliefs differ from those of the EPs. There is something potentially patronising about helping the client to see the “world in a different way” (Fox, op cit, p.238): the client may well have a valid perspective in the first place.
Although a full examination of Fox’s (2011) paper is beyond the scope of this thesis, he eloquently describes the concepts of ‘myside biases’ and ‘strongly held/hot beliefs’, which are said to stem from training institutions and EP services which take particular positions on the importance of some theoretical frameworks over others. Myside bias encompasses three phenomena: ‘validity effect’, which refers to the impact of repetition on the perceived validity of information, whether or not the content or source of the information is authentic; the ‘primacy-recency effect’ suggests what people hear first is most remembered and often creates a mysid e position which is reinforced by most recent debate through the validity effect (Stangor & McMillan, 1992); and ‘confirmation bias’, which refers to the tendency to seek out and interpret evidence that confirms one’s ‘world view’ (Oswald & Grosjean, 2004). The findings from this thesis would suggest that all such phenomena have impacted the EPs in the area of reading difficulties and dyslexia.

Seidenberg (2013) concurs and suggests that the evidence-practice gap between reading ‘science’ and reading ‘education’ exists because of fundamental differences in their respective philosophies (e.g. different goals and values, ways of training new practitioners, criteria for evaluating progress). Moreover, these differences appear difficult to reconcile as the two disciplines disseminate their research findings in different ways (e.g. at separate conferences attended by different audiences and through different journal outputs that target one audience or the other: Seidenberg, op cit). At a basic level scientists are working on the neural and genetic bases of dyslexia (Fletcher, 2009), while educationalists continue to debate whether dyslexia even exists (Elliott & Gibbs, 2008). One consequence of this is that on-going arguments may hinder the transference of dyslexia research into practice in classrooms.

These deep philosophical differences between education and science can be traced back to constructivist ideas emanating from the work of Vygotsky, Dewey, Piaget, and Bruner (see Tobias & Duffy, 2009 for a review). Seidenberg (2013) does

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15 Myside refers to “my” side of the issue under consideration and affects the way one cognitively processes information (Fox, 2011).
16 Referred to as the Positive Test Strategy.
not appear to object to a broader socio-cultural framework *per se*, rather to educationalists who position this paradigm over a processing information approach (e.g. concepts, procedures and facts) while largely ignoring basic research principles. Instead, he suggests that one can complement the other and wonders what Vygotsky who “... *lived in the Soviet Union, wrote in Russian, died in 1934, and never saw an American classroom or a television, computer, calculator, videogame or smartphone*” would make of the latest findings from neuroscience (p.345).

It is exactly because of the polarity in ideological values that EBP is necessary. Indeed, it is expected that the profession of educational psychology not only engages in EBP but that in doing so produces PBE and that EPs as scientist-practitioners participate in this process (MacKay & Malcolm, 2014). Lilienfeld (2014) reasoned that “*no serious scholar believes that evidence-based practice is a panacea*” (https://www.psychologytoday.com/blog/the-skeptical-psychologist/). As such EBP is not intended to prioritise experimental evidence over practitioner experience, but it provides the ability to ‘judiciously’ and ‘diligently’ (Sackett et al., 1996) apply effective interventions based on experimental data to real world situations (Kelly, 2012). In other words, EBP is “*a sensible starting point for practitioner decision making*” (Wolpert et al., 2006, p.4), especially if extensive practitioner experience is lacking, as is the case for newer qualified EPs and TEPs, or if the area is particularly controversial.

The notion that EPs should be evidence-based practitioners through PBE in relation to dyslexia may have reached an impasse. It is clear from the paucity of empirical studies reported in key EP journals, from 2010 through 2015, that there is a distinct lack of EBP being generated in the field of dyslexia by practising EPs. This, in addition to EPs’ values and beliefs, impacts on practice which thereby provides fewer opportunities to develop professional expertise, and so the circle continues. Collectively this suggests a decline in EPs reading about, and participating in, research and practice in dyslexia.

In response to claims by some of ‘no evidence’ that one poor reader differs from another, Ramus (2014) argues that ‘absence of evidence’ is not the same as...
‘evidence of absence’. He maintains that the former will not last forever and questions whether it is “... worth eradicating the dyslexia concept from the face of the Earth if one has to backtrack a few years later?” (p.3374).

SECTION TWO: Effective dissemination of research: outcomes and impact

Without dissemination, there is no knowledge building, theory confirmation, or benefit to clients (Thyer, 2001). Despite the increasing recognition of the importance of disseminating research findings by education, health and social care professions, there is also a growing recognition that the full potential for research evidence to improve practice and decision-making in various settings (either at a direct, managerial or policy level) is not yet realised (Wilson, Petticrew, Calnan, & Nazareth, 2010). In a society where we are ‘information rich’ and ‘knowledge poor’ (Regnier, Salmela, & Russell, 1993), EPs need to be concerned with disseminating evidence-based knowledge (rather than just ‘information’) to other researchers, practitioners, policymakers, educational settings, and to the recipients themselves (i.e. CYP and their families). Consequently, addressing deficiencies in the dissemination and transfer of research-based knowledge to practice is high on the policy agenda in the UK (National Institute for Health Research, 2009).

As interest in dissemination has grown, so too has the number of terms used, often overlapping and interrelated, to describe the process (e.g. diffusion, implementation, knowledge transfer, knowledge mobilisation, linkage and exchange) (Wilson et al., 2010). In general, dissemination can be thought of as the process of sharing information, knowledge and ideas that stem from research studies with those who need and can use them. Freemantle and Watt’s (1994, p.133) definition of dissemination as “processes by which target groups become aware of, receive, accept and utilize information” seems most appropriate for this thesis. This definition introduces both the notion of targeting specific groups with information and knowledge that may be of relevance, and highlights the necessity of such groups being able to utilise the knowledge once received.

17 For its role in advancing economic well-being (World Bank, 1998).
Harmsworth and Turpin, (2000) suggest it is helpful to view the dissemination process occurring over three different levels: ‘delivering and receiving of a message’, ‘the engagement of an individual in a process’ and ‘the transfer of a process or product’. This introduces the concepts of ‘word of mouth’ type dissemination, in other words, dissemination that aids the researcher build a profile in the field and does not necessarily involve circulating detailed knowledge, dissemination for understanding which directly targets a group whom the researcher believes can benefit from the findings, and dissemination for ‘action’ which refers to a change of practice or policy at the local, national or international level, resulting from implementing the findings offered from the research. A project that undertakes all three levels of dissemination will most likely pass through each of the stages in turn (Harmsworth, Turpin, Rees, & Pell, 2001).

Effectively bridging research and practice is a difficult process that has itself inspired much research as well as several models and frameworks (Harris et al., 2012). In simple terms, discovery is one thing, use is another (Harris, op cit). In Wilson et al.’s (2010) systematic scoping review, 33 available dissemination frameworks were identified which could be used to help guide dissemination planning and activity, which is a significant increase on the five frameworks reported by Mitton, Adair, McKenzie, Patten, and Waye Perry in 2007. While most conceptual frameworks are useful for generating hypotheses for future research (e.g. Greenhalgh, Robert, Macfarlane, Bate, & Kyriakidou, 2004; Wandersman et al., 2008), Harris et al. (2012) argue that there are few practical frameworks for testing dissemination approaches and as such have developed their own. This HPRC\textsuperscript{18} framework (see Figure 5) seems particularly useful as it provides an overarching framework for discussing practical roles researchers play in dissemination and dissemination research and may address some of the challenges reported (e.g. establishing efficacy in ‘real-world’ contexts: Flay, Biglan, Boruch, Castro, Gottfredson, & Kellam, 2005). In turn, this may help researchers develop and test approaches specifically for dissemination of EBP (e.g. Wilson, Brady, & Lesesne, 2011).

\textsuperscript{18} Developed at the University of Washington Health Promotion Research Center (HPRC).
The model comprises environmental changes, policies, programmes and systems, and potential roles that dissemination researchers could fulfil. The former could include, for example, research-tested environmental changes such as increased access to relevant training for staff, dyslexia policies, evidence-based dyslexia programmes and systems change (e.g. mandatory dyslexia training for classroom teachers, resurgence of teachers being responsible for, and the primary educators of, CYP with SEND).

**Figure 5. HPRC Dissemination Framework (Harris et al., 2012)**

In addition to the frameworks which include different levels of dissemination, Saywell and Cotton (1999) purport that the challenge of knowledge transfer is to improve the accessibility of the research findings to those we are trying to reach at the different levels. Bramlett, Murphy, Johnson, Wallingsford, and Hall (2002) reported that fewer than half of the 370 EPs in their study reported consulting journals to inform interventions. Indeed, accessibility of EBP in journals was a challenge to some of the EPs involved in this thesis. On the one hand this may be because many journals require subscription fees to gain access. On the other hand, some peer-reviewed journal articles are now open access and readily available on, for example, Google Scholar, public policy documents, mainstream media, blogs, and social media, e.g. Facebook, Twitter, LinkedIn, Researchgate. Therefore, other factors, such as EPs’ time, must also be considered.
While much attention has been given to how researchers should present information in the most ‘user friendly’ way, Louis and Dentler (1988) argued that a ‘promoting awareness’ model of dissemination (i.e. spreading information as widely as possible) may be quite different to a ‘knowledge use’ model which is primarily intended to encourage use. Key elements to a ‘knowledge use’ model include:

- Capitalising on incentives for change which can be a result of pressures from outside a setting and/or appeal to individual interests;
- providing ‘usable’ knowledge for practitioners and taking advantage of momentum;
- creating shared understanding of how this knowledge could help to improve local practice – encourage potential users to discuss the information and how it can best be used;
- stimulating increased diffusion of knowledge within and between educational agencies – the more frequently that useable information is exchanged, the more likely it is that knowledge from a trusted source will be attended to;
- understanding that the most effective dissemination combines both ‘top down’ and ‘bottom up’ approaches.

To ascertain whether knowledge is disseminated effectively, the evaluation and monitoring of the outcomes and impact of the research itself is fundamental. Monitoring can be viewed as a process which “… systematically and critically observes events connected to an activity in order to control the activities and adapt them to the conditions” (Molapo, 2007, p.5). Molapo (op cit) makes the distinction between ‘process’ monitoring and ‘progress’ monitoring with the former being concerned with the factors concerning ‘processes’ which are flexible and adaptable depending on the broader socio-economic context and the latter focusing on the outcomes which remain relatively inflexible (World Bank, 1998).

Whilst ‘evaluation’ has many definitions, more detailed ones contain the concept of ‘impact’ which can be defined as “the demonstrable contribution that research makes to the economy, society, culture, national security, public policy or
services, health, the environment, or quality of life, beyond contributions to academia” (Australian Research Council [ARC], 2015 http://www.arc.gov.au/research-impact-principles-and-framework). In practical terms this implies determining the effect of research findings on targeted beneficiaries, which could include the impact at different levels ranging from direct practices of EPs, on local policy or on the ultimate users and recipients, e.g. teachers and CYP with dyslexia.

In academia, there are three key elements to measuring the direct impact of research, namely, 1) quality of the journal (journal rankings such as Scopus\(^1\)), 2) quality of the publication/article, which equals the number of times cited and altmetrics\(^2\), and 3) personal or departmental measure (i.e. H-index\(^3\)). Indicators of impact beyond metrics are now being more widely accepted in the research community and can be used to complement key metrics such as article citations (ARC, 2015). These include media mentions and blogging which allow researchers to write for a much wider audience than is typically reached by academic journals and can complement these to build a case study of impact. However, The Research Excellence Framework’s Impact Assessment (Higher Education Funding Council for England, 2014) suggests that these do not count as ‘impact’ because it is difficult to trace a path from a specific piece of published research to an impact on policy (Bishop, 2012).

In organisations, two means of measuring impact include ‘benchmarking’ and ‘case-tracking’. However, such activities should not be considered as one-off exercises: the ultimate goal being to keep abreast of ever-improving best practice. The concept of ‘benchmarking’ denotes a method of identifying and learning from the ‘best practice’ of others both in terms of product and the processes involved (e.g. Bayney, 2005). Benchmarking involves looking outward (outside a particular organisation, discipline, industry, region or country) to examine how others achieve

\(^1\) An abstract and citation database of peer-reviewed literature and quality web sources, with smart tools to track, analyse and visualise research.

\(^2\) Altmetrics measure “… the number of times a research output gets cited, tweeted about, liked, shared, bookmarked, viewed, downloaded, mentioned, favourited, reviewed, or discussed. It harvests these numbers from a wide variety of open source web services that count such instances, including open access journal platforms, scholarly citation databases, web-based research sharing services, and social media” (Loria, 2013, http://aoasg.org.au/altmetrics-and-open-access-a-measure-of-public-interest.).

\(^3\) The H-index attempts to measure a researchers’ total (journal) output, based on citations over an entire body of work.
their performance levels, and to understand the processes they use. Riley, Schumann, Forman-Hoffman, Mihm, Applegate, and Asif (2007) identify seven different types of benchmarking of which internal, performance, external and process benchmarking seem most germane to the findings in this thesis. Case-tracking involves collating data outcomes from, for example, implementation interventions delivered elsewhere and so provides a means of testing for reliability. EPs, as professionals whose work links the worlds of theory and practice, need to be cognisant of both.

**SECTION THREE: Implications of the current research**

The thesis comprised a literature review of dyslexia scholarship in journals read by participating EPs and interviews with six different EPs about their views and practice in the field of dyslexia. The research aimed to make a contribution to the literature by providing an insight into how and why the EPs use particular psychological frameworks to ‘name and frame’ dyslexia in a particular way. The EPs sampled appear to have developed ‘myside’ biases towards certain theoretical perspectives (e.g. a strengths and needs approach) of which the label ‘dyslexia’ as a cultural meme has become a strongly held belief. Moreover, the less experienced EPs seem more emotionally attached to this, which is of concern because new or contradictory perspectives may be difficult for them to accommodate (Fox, 2011).

The following section examines the implications of the research at a group/participant level, an organisational level, and a wider professional level.

**Participant Level (EPs)**

The evidence that there was any impact on the EPs who participated in the study resulted primarily from them expressing the view that the interview process had challenged them to reflect on several issues which are highlighted in Table 5.
Table 5. Concepts challenged and potential impact

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Impact</th>
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<tbody>
<tr>
<td>The EPs’ beliefs about dyslexia and its nature.</td>
<td>This appears to provide some justification for EPs not ‘doing’ dyslexia. Some of the EPs did not seem to notice certain contradictions not only in relation to their core principles (e.g. empowering CYP) but possibly contravening the Equality Act (2010) and the CoP (2014). With the advancement of knowledge from neuroscience, it may be prudent to think about whether the BPS definition still holds up in litigation cases.</td>
</tr>
<tr>
<td>Whether their perceptions about dyslexia differ to those of ‘other’ neurodevelopmental differences (e.g. is it really about labelling or just the label ‘dyslexia’), and if so, why?</td>
<td>For more experienced EPs, not really. Any differences appeared due to being constrained by a definition which focused on a word level. Several of the EPs, especially those heavily involved with autism, wanted a greater understanding and evidence-base of the cognitive difficulties underpinning dyslexia. The less experienced EPs did not see the connection between psychology and reading which appears to be compounded by a lack of influence and clarity from several areas (e.g. initial training, experienced colleagues, a position statement from their respective EPS). Unless greater links are made, the newer EPs may continue to avoid information and interpretations that go against their belief system.</td>
</tr>
<tr>
<td>Whether there was a role for dyslexia in EP practice.</td>
<td>The interviews stimulated some thoughts and discussions around how they could develop their practice in dyslexia in a manner that would reconcile their individual core principles and beliefs as EPs.</td>
</tr>
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</table>

Although anecdotal, EPs appeared to respond particularly well to being ‘challenged’ by one of their peers (albeit a TEP). The assumption that individuals learn best when they interact with their peers and relate new ideas to an existing core of shared knowledge is central to the social theory of dissemination (Huberman...
& Broderick, 1995). In addition to assumptions being challenged, this is said to be most effective when there are personal incentives to rethink previous ideas, the challenges are not too great, and that there exists a minimum level of understanding of the content. Therefore, gaining more content knowledge may help EPs understand how dyslexia develops over time and view it more holistically. Belief systems and epistemology positions make it easier to obfuscate definitions, designations, causation, and utility of a diagnosis. However, while this dichotomy of perspectives persists (i.e. pure constructionism or EBD approach, or some semblance of the two), Sternberg (2009) contends that to think critically, you need first to have content about which to think as “... thinking in the absence of content is vacuous” (p.10). This remains a challenge as long as EPs are not accessing appropriate and most up-to-date research in the field.

One way in which EPs may engage in acquiring more content knowledge is if they are able to see a greater connection between psychology and dyslexia. The EPs in this study did not necessarily feel that dyslexia ‘belongs’ to them as psychologists. A focus on the developmental nature of dyslexia and its cognitive causes, rather than a very narrow view that dyslexia is just about reading and spelling and therefore similarly regarded like any other curricular subject, may aid this process. This has implications for the nature, type and frequency of articles that key EP journals publish which make the links between the stability of patterns of prediction at different stages of development and dyslexia (e.g. the role of processing language and working memory).

Dyslexia does and should ‘belong’ to EPs because of the long-term and pervasive impact of dyslexia across different stages of development and the concomitant behavioural manifestations (i.e. it affects many different spheres in a person’s life) underpinned by specific cognitive difficulties. Studies have consistently demonstrated the persistence of dyslexia into adolescence (Snowling, Muter, & Carroll, 2007) and adulthood (Bruck, 1992; Undheim, 2009). Furthermore, although difficult to control for confounding variables (e.g. differing degrees of intervention and acquisition of compensatory strategies) there are good reasons to assume that concurrent cognitive predictors of dyslexia observed in adults have persisted from childhood (Nergård-Nilssen, & Hulme, 2014). This may
help EPs view dyslexia more in line with ‘other’ developmental differences and may make them feel more comfortable working in the field especially given that cross-linguistic studies on typically developing and dyslexic CYP demonstrate that cognitive predictors of reading and dyslexia are universal (Kemp, Parrila, & Kirby, 2009) and are therefore not necessarily solely due to orthography\textsuperscript{22} and environmental factors (e.g. teaching method).

**Organisational Level**

Many of the EPs seemed interested in problem-solving and several ideas about how to move forward were stimulated as a result of engaging EPs in the research. These include:

- The need to plan a programme of whole team development in the area of dyslexia, in order to develop a consistent approach;
- the possibility of developing a specialist role for dyslexia within each EP service;
- the development of specialist interest groups both inter-professional (i.e. collaborating with other agencies within a local authority) and intra-professional (i.e. a dyslexia interest group linking EPs across local and/or national EP services);
- the possibility of developing a tri-partite assessment process similar to that used in the diagnostic pathway for autism.

**Professional Level**

The main implication of the findings from the thesis on a professional level is that the concept of dyslexia in EP practice remains, in the short term, ideology driven rather than an amalgamation of EBP and PBE. As such EP practice and dyslexia is ‘stuck in a rut’. There appears to be a longstanding predilection in EP practice to use perspectives that are too narrowly focused to deal well with complexities in the field of dyslexia, whilst ignoring a whole body of scientific evidence. This is reflected in the thesis in that many of the responses related to the narrow view that dyslexia is synonymous with reading difficulties. Although acquiring literacy skills

\textsuperscript{22} Orthographic consistency does however, have an impact on the rate at which reading develops and the ways in which symptoms of dyslexia are expressed (Caravolas \textit{et al.}, 2012).
(e.g. reading) is often problematical for those with dyslexia it also sits alongside a range of other processing skills including organisation, sequencing, retrieval of information, short-term memory, spelling, writing and numbers (e.g. Berninger, Nielsen, Abbott, Wijsman, & Raskind, 2008; Smith-Spark & Fisk, 2007). However, the study was data-driven and not researcher or best evidence driven.

According to Ramus (2014) what is needed is more research especially in relation to CYP who seem to resist each form of intervention as this requires a more thorough understanding of the nature of their difficulties. ‘More research’ should not be seen as the antidote for disagreements, as new results can often “… reveal previously unknown complexities, increasing the sense of uncertainty and highlighting the differences between competing perspectives” (Sarewitz, 2006, p.106). Sarewitz (op cit) argues that under such circumstances, choices must be made, and choices involve values. Crucially, the most positive role for EBP in support of decision-making comes only after values are clarified. This thesis therefore contributes in some small way to meeting this end. Part of the solution may come from an area more congruent with EPs’ values about “… pupil voice and enabling people to have a say in their own learning” (EP2). Incorporating into any future ‘Yellow Book’ or ‘check list’ experiential accounts of CYP with dyslexia to get a sense of what it is like to “walk in another’s shoes” (Hanson, 2011, p.158) may ultimately help EPs better understand and accommodate the multiple research messages that are available.

**SECTION FOUR:** A strategy for promoting and evaluating the dissemination and impact of the current research

The overarching theme for Paper 3 is EBP and its dissemination. Newman, Papadopoulos, and Sigsworth (1998) suggest that one of the key barriers to EBP is inadequate systems for the dissemination of evidence, including research findings, into practice. Implicit then is the idea that dissemination should be an integral part of effective research. With this in mind, the research herein would have benefitted greatly from reading around the subject of dissemination to learn more about the processes involved and the variety of possible avenues from the outset. Ideally, a dissemination strategy should have been incorporated in the original proposal for
this section to be done well. However, this research, for the main part, reflects the nature and structure of the thesis as it stood at the time of the original proposal. Consequently, what follows is somewhat hypothetical in that it attempts to describe what could be possible in an ideal situation.

To devise a strategy around dissemination, it is worth considering what the goal of the dissemination process is, to whom the research findings would be of interest, the most effective way to reach the target audience, and the timing for enacting the dissemination plan (Bradley & McSherry, 2009). Additionally, it may be prudent to examine who ‘disseminates’. Junge (1986) and Rogers (1992) suggest ‘disseminators’ are individuals or groups that are able to move from one social system to another. EPs are naturally placed to be effective in the role.

The goal of the dissemination process apposite to this thesis is not necessarily to promote awareness or a knowledge ‘use’ model but to stimulate a different kind of ‘debate’. Not one that necessarily involves the disseminator engaging EPs in ‘sowing activities’, to promote awareness, or to encourage knowledge use but activities that open up regular communication channels, i.e. a debate by EPs, for EPs to allow them a voice about their own presuppositions, concerns and to reflect on practice patterns. Huberman and Broderick (1995) draw on Vygotskian principles to argue that dissemination takes place through “…sustained interactions between researchers and practitioners” (p.4) particularly where there is a shared ‘culture’ at some level. Thus, their emphasis is largely on the way in which individual researchers and practitioners enter into relationships with one another that cause them, as individuals, to change their assumptions.

Table 6. Ideas for prospective target audiences, media for dissemination, and potential goals

<table>
<thead>
<tr>
<th>To Whom?</th>
<th>How?</th>
<th>Why?</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPs</td>
<td>• Individual or group discussion with participating EPs.</td>
<td>• To consider the findings and implications for their practice and respective services.</td>
</tr>
</tbody>
</table>

23 Based on the premise that interpersonal processes must be translated into intrapersonal processes before learning can be said to have occurred.
<table>
<thead>
<tr>
<th>Group</th>
<th>Activities</th>
<th>Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authoritative Practitioners</td>
<td>• Continual professional development within the researcher’s EPS.</td>
<td>• To ascertain interest/motivation to develop a special interest group.</td>
</tr>
<tr>
<td></td>
<td>• Team meetings</td>
<td>• To establish a regional working party to consider the implications for other EPs and services.</td>
</tr>
<tr>
<td></td>
<td>• Professional forums (e.g. EPNET) to widen EP participation in on-going discussions.</td>
<td>• To develop a useable pathway/ checklist.</td>
</tr>
<tr>
<td></td>
<td>• Publication in key EP practitioner journals (e.g. EPiP).</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Publication in non-peer reviewed journals (e.g. The Psychologist, DECP Debate).</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Further research</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Consultation</td>
<td></td>
</tr>
<tr>
<td>Academic practitioners</td>
<td>• Professional forums (e.g. EPNET) to widen EP participation in on-going discussions.</td>
<td>• To have academic practitioners represented in the working party.</td>
</tr>
<tr>
<td></td>
<td>• Publication in key EP practitioner journals (e.g. EPiP, DECP Debate).</td>
<td></td>
</tr>
<tr>
<td>TEPs</td>
<td>• Professional forums (e.g. EPNET) to widen EP participation in on-going discussions.</td>
<td>• To have TEP representation in the working party.</td>
</tr>
<tr>
<td></td>
<td>• Training</td>
<td></td>
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<tr>
<td></td>
<td>• Publication in key EP practitioner journals (e.g. EPiP, DECP Debate).</td>
<td></td>
</tr>
<tr>
<td>Academics</td>
<td>• Publication in peer-reviewed journals (e.g. The Journal of Child Psychology and Psychiatry)</td>
<td>• To develop a greater understanding of some of the barriers to bridging the science-practice gap.</td>
</tr>
<tr>
<td></td>
<td>• Conferences</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Scientist-practitioner collaboration in research.</td>
<td></td>
</tr>
<tr>
<td>Specialist Teachers/ SENCos</td>
<td>• Articles in Professional Association for Teachers and Assessors of Students with SpLD (Patoss) publications.</td>
<td>• To have specialist teacher representation in the working party.</td>
</tr>
<tr>
<td></td>
<td>• CPD, cluster meetings</td>
<td>• Better interdisciplinary working.</td>
</tr>
<tr>
<td></td>
<td>• Consultation</td>
<td>• Shared understanding of issues.</td>
</tr>
<tr>
<td></td>
<td>• Training</td>
<td></td>
</tr>
<tr>
<td>Charities</td>
<td>• Publication within dedicated journals (e.g. DYSLEXIA).</td>
<td>• To have representation in the working party.</td>
</tr>
<tr>
<td></td>
<td>• Workshops</td>
<td>• Shared understanding of issues.</td>
</tr>
<tr>
<td></td>
<td>• Conferences</td>
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<td></td>
<td>• Training</td>
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</table>
It is hoped that the research findings would be of most interest to EPs, TEPs, and academic/practising EPs who teach on the ITT Initial Training of EPs programme. However, it may also be of interest to academics who publish widely in the field of dyslexia but who are not practising EPs, specialist teachers, special educational needs co-ordinators (SENCos), and dyslexia charities (e.g. Dyslexia Action).

Publication in academic journals is a key activity for academic researchers and the primary way by which research findings are disseminated (Bradley & McSherry, 2009). However, Watt (1996) argued that scientific journals are ineffective in influencing practice and suggests that academic publications are often regarded by practitioners as an activity to be conducted by university departments, or research and development units, and not by front line practitioners (e.g. teachers, EPs). In health care settings, Newman et al. (1998) found that the closer NHS staff were to the provision of care, the less aware they were of research developments in their specialty areas. Within the university setting, the reverse can be a challenge for academics who are required to stay in touch with novel practice within settings, in order to implement into teaching or supervision sessions. Consequently, the suggested dissemination strategy focuses mainly on means of opening up channels of debate for EPs. That said the researcher will attempt to publish the findings in EPiP as a starting point.

The most effective way of monitoring the impact of the dissemination strategy (and findings) is most likely to be achieved through internal benchmarking and, if published, through tracking citations via ResearchGate.

**Conclusion**
The notion of dissemination, the impact of research and the various methods for measuring and evaluating this are complex and multifactorial. Indeed, such concepts have developed into a discipline in itself (i.e. Implementation Science). If the goal of research is to build empirically based knowledge, corroborate or disconfirm theories, test the effectiveness of EP practice, and ultimately benefit CYP and educational systems, then the dissemination of research findings has to be an integral component of the research process (Thyer, 2001). This final section of this
thesis started by asking why so many struggle to acquire literacy skills when there is so much scientific knowledge available. Before addressing problems such as the failure to translate this knowledge from scientifically controlled settings to diverse and dynamic contexts of schools, it may be necessary to open up a debate about what the issues are for those ideally positioned to have most influence, i.e. EPs. It is hoped that this small scale piece of research may be relevant to those EPs interested in bridging the theory to practice gap in dyslexia and help to provide a stimulus or starting point for that debate. Perhaps it is time for the BPS to revisit the issue and produce a new ‘Yellow Book’.
REFERENCES:


https://www.staffs.ac.uk/assets/The_Challenges_of_Dissemination.  
[Accessed: 10th April 2016].


Hanson, S. (2011). *A qualitative investigation into children's and parents’ views of mental health services.* Unpublished doctoral thesis, Faculty of Medical and Human Sciences, University of Manchester.


Slavin, R. (2013). Overcoming the Four Barriers to Evidence-based Education. 
*Education Week,* 32(29).


effectancy incongruent information: A review of the social and social 


New York: Routledge.

Cambridge: University of Cambridge Faculty of Education.

with dyslexia in childhood: Reading development and educational levels. 


APPENDIX A - Ethical Approval

Dear Allison

Ref: PRI-5404006-diss1

I am pleased to confirm that your ethical approval application for dissertation “Literacy Learning and Dyslexia: What Do Educational Psychologists Need to Know?” has been submitted as Low Risk by your supervisor.

The approval for this is on condition you supply all supporting documentation which is relevant to your research i.e. consent and participation forms, interview schedules, Questionnaires.

If you have submitted all forms mentioned above then please accept this email as confirmation that you are now able to carry out your research. If anything untoward happens during your research then please ensure you make your supervisor aware who can then raise it with the School Research Integrity Committee on your behalf.

This approval is only for the Ethical Approval application, you are still required, if necessary, to have received approval from the Fieldwork Risk Assessment before carrying out any research.

Regards

Daniel Chung | Teaching and Learning Student Support Team | School of Environment, Education and Development | Arthur Lewis Building | Oxford Road | The University of Manchester | Manchester, M13 9PL | United Kingdom Tel:+44(0)161 2753620 | http://www.seed.manchester.ac.uk/
Minor Amendments to LOW risk research design – Paper 1

F.1 Minor amendments to LOW risk research design

Any minor amendment to low risk approved research submissions should be detailed below. LOW risk research amendments should be checked and agreed by the supervisor as constituting a ‘minor’ change then signed-off below. Substantial changes to research will require a reassessment and revised ethical approvals. This revised copy of the RREA showing the approved amendments, and any amended/additional supporting documents, should be forwarded electronically to the ethics administrator at ethics.education@manchester.ac.uk. The Ethics Administrator will provide formal acknowledgement of approval of the change by email. A copy should be retained by the supervisor.

To be completed if/when applicable:

<table>
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<th>Minor amendment to assessed research agreed (1):</th>
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<tr>
<td>Details of amendment</td>
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<td>The amendments are due to the change in thesis structure introduced by the University. Instead of a traditional monograph, trainee Educational Psychologists are now required to write three papers: Paper 1 (T1) – systematic literature review; Paper 2 (T2) – empirical paper; Paper (T3) - reflective account. The original ethical approval application (ethical approval received on 21.08.14) pertains to the empirical paper (T2). The application for minor amendments relates to the systematic review (T1) and involves asking expert academic practitioner Educational Psychologists (via email) their opinion on what they consider to be the most relevant academic journals for Educational Psychologists. Furthermore, they will be asked to rank in order the top five journals that they read. Please see Participant Information Sheet below for further information.</td>
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<th>Supervisor’s signature:</th>
<th>Date:</th>
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Minor deviations from previously approved research submissions are defined as those which neither change the nature of the study nor deviate from any participatory research groups previously identified. Supervisors should contact a member of the MIE Research Integrity Committee for advice if in doubt.
Participant Information Sheet – Paper 1

You are being invited to take part in a research study as part of a student project toward a doctorate of educational psychology. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Please ask if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part. Thank you for reading this.

Who will conduct the research?
Allison Inoue (Trainee Educational Psychologist)

What is the aim of the research?
The aim of this part of the study is to consult with expert academic practitioner Educational Psychologists to ascertain what academic journals they are reading.

Why have I been chosen?
You have been chosen because you are an expert academic and or practitioner Educational Psychologist.

What will you be asked to do if you took part?
You will be asked your opinion on what you consider to be the most relevant academic journals for Educational Psychologists. Furthermore, it would be helpful if you could rank in order the top five journals that you read.

What happens to the data collected and how is confidentiality maintained?
The data will be used to inform my systematic literature review (Paper 1) and submitted to the University in partial fulfilment of the Doctorate in Educational and Child Psychology. All data will be anonymised and stored securely.

What happens if I do not want to take part or if I change my mind?
Participation in the study is purely voluntary. If you decide to take part you will be given a consent form to sign in addition to this information sheet. You are free to
withdraw at any time from participating in the study, even after you have signed the consent form. You do not have to give a reason for withdrawing and doing so will have no detrimental effects or repercussions for you.

Where will the research be conducted?
You will be asked for the top five academic journals that you read via email.

Will I be paid for participating in the research?
No

What is the duration of the research?
Approximately 10 minutes.

Will the outcomes of the research be published?
The information will be used for a thesis in partial fulfilment of a Doctorate in Educational and Child Psychology. It is expected that part or all of the findings will be disseminated through publication.

Criminal Records Check (if applicable)
I have undergone a satisfactory criminal records check to work with vulnerable adults and children and have an up-to-date certificate with DBS number.

Contact for further information
Allison Inoue
Email: allison.inoue@postgrad.manchester.ac.uk

What if something goes wrong?
Should you wish to contact my supervisor, please contact Dr J Stothard at the University of Manchester.
Email: jan.stothard@mypostoffice.co.uk

If there are any issues regarding this research that you would prefer not to discuss with members of the research team, please contact the Research Practice and Governance Co-ordinator by either writing to 'The Research Practice and Governance Co-ordinator, Research Office, Christie Building, The University of Manchester, Oxford Road, Manchester M13 9PL', by emailing: Research-Governance@manchester.ac.uk, or by telephoning 0161 275 7583 or 275 8093
# Consent Form – Paper 1

If you are happy to participate please complete and sign the consent form below:

<table>
<thead>
<tr>
<th></th>
<th>Please Initial Box</th>
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<tbody>
<tr>
<td>1. I confirm that I have read the attached information sheet on the above study and have had the opportunity to consider the information and ask questions and had these answered satisfactorily.</td>
<td></td>
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<tr>
<td>2. I understand that my participation in the study is voluntary and that I am free to withdraw at any time without giving a reason.</td>
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<td>3.</td>
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<td>4. I understand that the data will be anonymised.</td>
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<td>4. I agree that any data collected may be passed to other researchers in anonymous form</td>
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I agree to take part in the above project

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<tr>
<th>Name of participant</th>
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<th>Name of researcher</th>
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<th>Signature</th>
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</table>
As part of my systematic literature review for my thesis, I am interested in ascertaining what you consider to be the most relevant academic journals for Educational Psychologists. I would be very grateful if you could answer the following four questions:-

1. What are the top five journals that you read (please rank in order)?

2. Which region did you train in e.g. West Midlands, North West?

3. Which region are you currently employed in?

4. Which region(s) have you previously worked in e.g. South West?
APPENDIX B - Journal Submission Guidelines

*Educational Psychology in Practice*: theory, research and practice in educational psychology

**Disclaimer**

Papers 1 and 2 has been written for publication in *Educational Psychology in Practice*. General submission guidelines for the target journal have been followed. However, for the purposes of thesis submission Times New Roman font size 12, extended left hand margins and extended word count have been used to adhere to University submission guidelines, and for ease of accessibility.

**Manuscript preparation**

1. **General guidelines**

Manuscripts are accepted in English. British English spelling and punctuation are preferred. Please use double quotation marks, except where “a quotation is ‘within’ a quotation”. Long quotations of 40 words or more should be indented without quotation marks.

Articles should be of direct relevance to the theory, research and practice of educational psychologists. Articles should be original work, where appropriate should acknowledge any significant contribution by others, and should not have been accepted for publication elsewhere. Authors should confirm that clearance has been obtained from a relevant senior officer of the LEA if the article concerns the policies and practices of the LEA.

Authors are invited to submit articles which might fit one of five broad headings, although these headings should not be seen as exclusive: Research or review articles of 2000–6000 words; Articles reporting research in brief, 1500–2000 words; Research notes of 800–1000 words; Practice articles of 1500–2000 words; Articles reflecting on practice, 1500–2000 words. Authors should include a word count with their manuscript.

Manuscripts should be compiled in the following order: title page; abstract; keywords; main text; acknowledgements; references; appendices (as appropriate); table(s) with caption(s) (on individual pages); figure caption(s) (as a list).

Abstracts of 150 words are required for all manuscripts submitted.

Each manuscript should have 5 to 6 keywords.

Search engine optimization (SEO) is a means of making your article more
Section headings should be concise.

All authors of a manuscript should include their full names, affiliations, postal addresses, telephone numbers and email addresses on the cover page of the manuscript. One author should be identified as the corresponding author. Please give the affiliation where the research was conducted. If any of the named co-authors moves affiliation during the peer review process, the new affiliation can be given as a footnote. Please note that no changes to affiliation can be made after the manuscript is accepted. Please note that the email address of the corresponding author will normally be displayed in the article PDF (depending on the journal style) and the online article.

All persons who have a reasonable claim to authorship must be named in the manuscript as co-authors; the corresponding author must be authorized by all co-authors to act as an agent on their behalf in all matters pertaining to publication of the manuscript, and the order of names should be agreed by all authors.

Biographical notes on contributors are not required for this journal.

Please supply all details required by any funding and grant-awarding bodies as an Acknowledgement on the title page of the manuscript, in a separate paragraph, as follows:

For single agency grants: "This work was supported by the [Funding Agency] under Grant [number xxxx]."

For multiple agency grants: "This work was supported by the [Funding Agency 1] under Grant [number xxxx]; [Funding Agency 2] under Grant [number xxxx]; and [Funding Agency 3] under Grant [number xxxx]."

Authors must also incorporate a Disclosure Statement which will acknowledge any financial interest or benefit they have arising from the direct applications of their research.

For all manuscripts non-discriminatory language is mandatory. Sexist or racist terms must not be used.

Authors must adhere to SI units. Units are not italicised.

When using a word which is or is asserted to be a proprietary term or trade mark, authors must use the symbol ® or TM.

2. Style guidelines

Description of the Journal’s article style.
Description of the Journal’s reference style.
Guide to using mathematical scripts and equations.
Word templates are available for this journal. If you are not able to use the template via the links or if you have any other template queries, please contact authortemplate@tandf.co.uk.

Authors must not embed equations or image files within their manuscript.

3. Figures
†Back to top.

Please provide the highest quality figure format possible. Please be sure that all imported scanned material is scanned at the appropriate resolution: 1200 dpi for line art, 600 dpi for grayscale and 300 dpi for colour.

Figures must be saved separate to text. Please do not embed figures in the manuscript file.

Files should be saved as one of the following formats: TIFF (tagged image file format), PostScript or EPS (encapsulated PostScript), and should contain all the necessary font information and the source file of the application (e.g. CorelDraw/Mac, CorelDraw/PC).

All figures must be numbered in the order in which they appear in the manuscript (e.g. Figure 1, Figure 2). In multi-part figures, each part should be labelled (e.g. Figure 1(a), Figure 1(b)).

Figure captions must be saved separately, as part of the file containing the complete text of the manuscript, and numbered correspondingly.

The filename for a graphic should be descriptive of the graphic, e.g. Figure1, Figure2a.

4. Publication charges
†Back to top.

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There is no submission fee for Educational Psychology in Practice.

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There are no page charges for Educational Psychology in Practice.

Colour charges
Colour figures will be reproduced in colour in the online edition of the journal free of charge. If it is necessary for the figures to be reproduced in colour in the print version, a charge will apply. Charges for colour figures in print are £250 per figure ($395 US Dollars; $385 Australian Dollars; 315 Euros). For more than 4 colour figures, figures 5 and above will be charged at £50 per figure ($80 US Dollars; $75 Australian Dollars; 63 Euros).
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6. Supplemental online material
Authors are encouraged to submit animations, movie files, sound files or any additional information for online publication.

Information about supplemental online material

Manuscript submission

All submissions should be made online at the Educational Psychology in Practice Scholar One Manuscripts website. New users should first create an account. Once logged on to the site, submissions should be made via the Author Centre. Online user guides and access to a helpdesk are available on this website.

Manuscripts may be submitted in any standard editable format, including Word and EndNote. These files will be automatically converted into a PDF file for the review process. LaTeX files should be converted to PDF prior to submission because ScholarOne Manuscripts is not able to convert LaTeX files into PDFs directly. All LaTeX source files should be uploaded alongside the PDF.

Click here for information regarding anonymous peer review.

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anywhere, at any time. This option is made available once an article has been accepted in peer review.

Full details of our Open Access programme
APPENDIX C - Articles included in the initial identification (Phase 1) but excluded from the analysis
### Table 7. British Journal of Educational Psychology – 3 articles

<table>
<thead>
<tr>
<th>Author and Reference</th>
<th>Title</th>
<th>Category</th>
<th>Year</th>
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<tbody>
<tr>
<td>Cain, K., &amp; Bignell, S. (2014). <em>British Journal of Educational Psychology, 84</em>(1), 108–124</td>
<td>Reading and listening comprehension and their relation to inattention and hyperactivity.</td>
<td>2</td>
<td>2014</td>
</tr>
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### Table 8. School Psychology International – 3 articles

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<th>Author and Reference</th>
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<th>Year</th>
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### Table 9. British Journal of Special Education – 6 articles

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<th>Author and Reference</th>
<th>Title</th>
<th>Category</th>
<th>Year</th>
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### Table 10. Child & Adolescent Mental Health – 1 article

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<th>Author and Reference</th>
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<th>Category</th>
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<td>Author and Reference</td>
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Table 12. Journal of Child Psychology and Psychiatry (continued)

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<tr>
<th>Author and Reference</th>
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<th>Year</th>
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Table 13. Journal of Child Psychology and Psychiatry (continued)

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<th>Author and Reference</th>
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Table 14. Psychology in the Schools – 20 articles

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<td>Author and Reference</td>
<td>Title</td>
<td>Category</td>
<td>Year</td>
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<tr>
<td>Lembke, E.S., McMaster, K.L., &amp; Stecker, P. M. (2010). <em>Psychology in the Schools, 47</em>(1), 22-35.</td>
<td>The prevention science of reading research within a Response-to-Intervention model.</td>
<td>3</td>
<td>2010</td>
</tr>
<tr>
<td>Bursuck, B., &amp; Blanks, B. (2010). <em>Psychology in the Schools, 47</em>(5), 421–431.</td>
<td>Evidence-based early reading practices within a Response to Intervention system.</td>
<td>3</td>
<td>2010</td>
</tr>
<tr>
<td>Vaughn, S., Denton, C.A., &amp; Fletcher, J.M. (2010). <em>Psychology in the Schools, 47</em>(5), 432–444.</td>
<td>Why intensive interventions are necessary for students with severe reading difficulties.</td>
<td>3</td>
<td>2010</td>
</tr>
<tr>
<td>Swanson, E.A., &amp; Vaughn, S. (2010). <em>Psychology in the Schools, 47</em>(5), 481–492.</td>
<td>An observation study of reading instruction provided to elementary students with learning disabilities in the resource room.</td>
<td>3</td>
<td>2010</td>
</tr>
</tbody>
</table>
APPENDIX D - Articles included in the analysis (Phase 2)
<table>
<thead>
<tr>
<th>Study design</th>
<th>Aim</th>
<th>Participants</th>
<th>Measurement &amp; Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantitative – correlational design.</td>
<td>To validate LR as a screening tool for Singaporean CYP suspected as having dyslexia.</td>
<td>LR – Lucid Rapid; DV – dependent variable; RC – reading comprehension; NWF – non-word fluency; LC – listening comprehension; V – vocabulary;</td>
<td></td>
</tr>
</tbody>
</table>

LR: Lucid Rapid; DV: dependent variable; RC: reading comprehension; NWF: non-word fluency; LC: listening comprehension; V: vocabulary.
Table 17. Category 2 (continued)

<table>
<thead>
<tr>
<th>Article authors</th>
<th>Title</th>
<th>Journal</th>
<th>Location</th>
<th>Aim</th>
<th>Study design</th>
<th>Participants</th>
<th>Measurement &amp; Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lyon, F., &amp; MacQuarrie, S. (2014).</td>
<td>Assessment of reading skills in Gaelic-medium education: Exploring teachers’ perceptions and present practice.</td>
<td>Educational &amp; Child Psychology, 31(2), 21-32.</td>
<td>Scotland, UK</td>
<td>To describe how language skills are assessed in Gaelic and to share educational professionals views on the assessment of literacy difficulties in Gaelic.</td>
<td>Qualitative – questionnaires and semi-structured interviews</td>
<td>Teachers from 60 GME primary schools in Scotland were invited – 45 questionnaires were returned of which 40% (18 out of 45) elected to participate in the semi-structured interview.</td>
<td>No standardised tests were used by the teachers with many relying on their own judgement and experience to identify difficulties in phonological awareness. The consequences stemming from a lack of suitable assessments and the concomitant frustration was evident from various comments made by teachers, who suggested that they had little in the way of resources to aid pupils struggling with literacy. The authors suggest that EPs have a role in developing resources/standardised tests to support teachers and pupils with literacy difficulties.</td>
</tr>
</tbody>
</table>

Gaelic Medium Education
### Table 18. Category 3

<table>
<thead>
<tr>
<th>Article authors</th>
<th>Title</th>
<th>Journal</th>
<th>Location</th>
<th>Aim</th>
<th>Study design</th>
<th>Participants</th>
<th>Measurement &amp; Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roberts, W., &amp; Norwich, B. (2010).</td>
<td>Using precision teaching to enhance the word reading skills and academic self-concept of secondary school students: a role for professional educational psychologists.</td>
<td>Educational Psychology in Practice, 26(3), 279-298.</td>
<td>England, UK</td>
<td>To investigate how PT can be used as a school-based initiative to improve pupils’ word reading skills.</td>
<td>A quasi-experimental ‘cross over’ design – 4 groups received either their UTA for a term and then crossed over to receive UTA plus PT for the next term or vice versa. Groups A and B (assigned to Cohort 1) received 6 weeks of daily intervention before ‘crossing over’ (Terms 1 and 2) and Groups C and D (assigned to Cohort 2) received five weeks of each intervention (Terms 3 and 4). The differences between Cohort 1 and 2 lay in the addition of a structured framework for TAs to optimise their delivery of PT for Cohort 2.</td>
<td>77 pupils across five English secondary schools (3 mainstream and 2 specialist schools).</td>
<td>RAM; MALS Cohort 1 - parallel gains in median performance on RAMs at each time point following PT and UTA. Cohort 2 - marked gains in RAM scores when PT interventions took place. Both Cohorts showed increases in mean MALS scores - no statistically significant difference in scores between or within the two groups. Follow-up RAMs were taken for Cohort 2 at 13 and 19 months following cessation of PT intervention.</td>
</tr>
</tbody>
</table>

RAM – reading accuracy; UTA - usual teaching approach; MALS – Myself as a Learner Scale (Burden, 1998);
Table 19. Category 4

<table>
<thead>
<tr>
<th>Article authors</th>
<th>Title</th>
<th>Journal</th>
<th>Location</th>
<th>Aim</th>
<th>Study design</th>
<th>Participants</th>
<th>Measurement &amp; Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Howard-Jones P. A. (2011).</td>
<td>From brain scan to lesson plan.</td>
<td>The Psychologist, 24(2), 110-113.</td>
<td>UK</td>
<td>Article:-</td>
<td>Howard-Jones introduces thought-provoking insights into “authentic interdisciplinary work” (p.111) and raises the notion of ‘neuromyths’ arising perhaps from narrow personal epistemological perspectives and different perceptions of word-meanings common to different disciplines (e.g. learning, attention, motivation) which may emanate from different professionals’ personal and cultural values. He suggests that psychology can help mediate between neuroscience and education in developing both a scientific and educational understanding of learning.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goswami, U. (2013).</td>
<td>Dyslexia – In tune but out of time.</td>
<td>The Psychologist, 26(2), 106-109.</td>
<td>UK</td>
<td>Article:-</td>
<td>CYP with dyslexia find it difficult to hear speech rhythm and speech timing and are less sensitive to slow changes in amplitude (speech soundwaves) than other children. Fluctuations in speech energy (signal intensity) have been found to be important for understanding speech. Frequency modulation (FM) and amplitude modulation (AM) can be used to transmit sound (as in AM and FM radio but natural transmitters). While frequency cues (FM) are important, Goswami’s research has shown AM plays a much greater role in speech perception. CYP with dyslexia also appear to have difficulties in gauging how fast an increase in intensity reaches its peak (known as ‘rise time’) and beat structure which appears to be consistent across languages and orthographies. Difficulties in basic auditory processing of rise time, AM and beat structure would, according to Goswami, lead naturally to difficulties in processing the sound structure of words and to prosodic (features that appear when sounds are put together in connected speech, e.g. intonation, stress and rhythm) difficulties which would be linked to difficulties in judging phonemic similarity across different words. Goswami suggests practical implications of TST for remediation include playground games to develop ‘beats’ (e.g. clapping) and linking musical beats to the beats in language.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 20: Category 5

<table>
<thead>
<tr>
<th>Article authors</th>
<th>Title</th>
<th>Journal</th>
<th>Location</th>
<th>Aim</th>
<th>Study design</th>
<th>Participants</th>
<th>Measurement &amp; Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warhurst, A., &amp; Norgate, R. (2012).</td>
<td>Progress of pupils attending resourced provision for specific learning difficulties.</td>
<td>Educational Psychology in Practice, 28(1), 91-103.</td>
<td>England, UK</td>
<td>To examine progress of pupils attending a resourced SpLD provision</td>
<td>Quantitative - repeated measures. Pupils were tested in Y7 (baseline) and subsequently tested again at the end of each school year thereafter until Y11.</td>
<td>109 pupils across 6 mainstream schools with resourced provision for SpLD</td>
<td>NARA; Vernon Graded Word Spelling (Vernon, 1998); MALS</td>
</tr>
<tr>
<td>Woods, K., Stothard, J., Lydon, J., &amp; Reason, R. (2013).</td>
<td>Developing policy and practice for dyslexia across a local authority: a case study of educational psychology practice at organisational level.</td>
<td>Educational Psychology in Practice, 29(2), 180-196</td>
<td>England, UK</td>
<td>To describe and evaluate the context in which EPs and an EPS to contribute to English LA policy and practice for CYP with dyslexia</td>
<td>Mixed-method case-study design - two units of analysis</td>
<td>A PEP, a policy development group members’ focus groups; a questionnaire survey of Special Educational Needs Coordinators (SENCos)</td>
<td></td>
</tr>
</tbody>
</table>

NARA - Neale Analysis of Reading Ability II (Neale, 1997); MALS – Myself as a Learner Scale (Burden, 1998); PEP – Principle Educational Psychologist
Table 21. Category 7

<table>
<thead>
<tr>
<th>Article authors</th>
<th>Title</th>
<th>Journal</th>
<th>Location</th>
<th>Aim</th>
<th>Study design</th>
<th>Participants</th>
<th>Measurement &amp; Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Martinelli, V., &amp; Schembri, J. (2015).</td>
<td>Dyslexia and creativity in Maltese male adolescents.</td>
<td><em>DECP Debate</em> 156, 21-31.</td>
<td>Malta</td>
<td>To test if dyslexic individuals possess any superior non-verbal creative skills when matched with the comparison group.</td>
<td>Quantitative – cross-sectional. Testing for differences in TTCT scores between 2 groups (dyslexic and non-dyslexic)</td>
<td>2 groups of 12-year old boys (N=48)</td>
<td>Ravens Standard Progressive Matrices (Raven, Raven, &amp; Court, 1998); Maltese reading and comprehension Reading and Understanding Test Level 2 (University of Malta, 2010); TTCT (Torrance, E.P., 1966). No differences were found between the 2 groups.</td>
</tr>
<tr>
<td>Reason, R., &amp; Stothard, J. (2013).</td>
<td>Is there a place for dyslexia in educational psychology practice?</td>
<td><em>DECP Debate</em> 146, 8-13.</td>
<td>UK</td>
<td>This article aimed to compare the DECP and Rose Report definition of dyslexia. The authors argue that the working definitions adopted by the reports are similar – the only important difference is the idea of a continuum introduced explicitly in the Rose Report (see Paper 1, p.29-30 for summary).</td>
<td></td>
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</tr>
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</table>

APPENDIX E - Excluded Articles
Table 22. Psychology in the Schools – 12 articles removed

<table>
<thead>
<tr>
<th>Author and Reference</th>
<th>Title</th>
<th>Year</th>
<th>Reason for exclusion</th>
</tr>
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</table>
Table 23. Journal of Child Psychology and Psychiatry and allied disciplines – 3 articles removed

<table>
<thead>
<tr>
<th>Author and Reference</th>
<th>Title</th>
<th>Year</th>
<th>Reason for exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Author and Reference</td>
<td>Title</td>
<td>Year</td>
<td>Reason for exclusion</td>
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</table>

<table>
<thead>
<tr>
<th>Author and Reference</th>
<th>Title</th>
<th>Year</th>
<th>Reason for exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Author and Reference</td>
<td>Title</td>
<td>Year</td>
<td>Reason for exclusion</td>
</tr>
<tr>
<td>----------------------</td>
<td>----------------------------------------------------------------------</td>
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<td>---------------------------</td>
</tr>
</tbody>
</table>
### Table 27. British Journal of Educational Psychology taken out - 5 articles removed

<table>
<thead>
<tr>
<th>Author and Reference</th>
<th>Title</th>
<th>Year</th>
<th>Reason for exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retelsdorf, J., Becker, M., Köller, O., &amp; Möller, J. (2012). <em>British Journal of Educational Psychology</em>, 82, 647–671.</td>
<td>Reading development in a tracked school system: A longitudinal study over 3 years using propensity score matching.</td>
<td>2012</td>
<td>Not relevant to the LRQ</td>
</tr>
<tr>
<td>Alcock, K. J., Ngorosho, D., Deus, C., &amp; Jukes, M. C. H. (2010). <em>British Journal of Educational Psychology</em>, 80(1), 55–76.</td>
<td>We don't have language at our house: Disentangling the relationship between phonological awareness, schooling, and literacy.</td>
<td>2010</td>
<td>Not relevant to the LRQ</td>
</tr>
<tr>
<td>Author and Reference</td>
<td>Title</td>
<td>Year</td>
<td>Reason for exclusion</td>
</tr>
<tr>
<td>----------------------</td>
<td>----------------------------------------------------------------------</td>
<td>------</td>
<td>---------------------</td>
</tr>
<tr>
<td>Ashbrook, J. (2010) Educational Psychology in Practice, 26(3), 219-238</td>
<td>Learning a ‘new language’ – the objective approach to early literacy in English.</td>
<td>2010</td>
<td>Not relevant to the LRQ</td>
</tr>
<tr>
<td>Author and Reference</td>
<td>Title</td>
<td>Year</td>
<td>Reason for exclusion</td>
</tr>
<tr>
<td>----------------------</td>
<td>-------</td>
<td>------</td>
<td>----------------------</td>
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<tr>
<td>Yule, V. <em>The Psychologist</em>, 27(1), 4.</td>
<td>A literacy experiment to try</td>
<td>2014</td>
<td>Review</td>
</tr>
<tr>
<td><em>The Psychologist</em>, 26(1), 42-43</td>
<td>Interview with Dorothy Bishop</td>
<td>2013</td>
<td>Interview Not relevant to the LRQ</td>
</tr>
</tbody>
</table>
**APPENDIX F - Research Risk and Ethics Assessment – Paper 2**

Manchester Institute of Education, University of Manchester

To be completed by AEF administrator

<table>
<thead>
<tr>
<th>RIA reference</th>
<th>Date received</th>
<th>Date approved</th>
</tr>
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</table>

**SECTION A - SUMMARY OF RESEARCH PROPOSAL**

This section should be completed by the person undertaking the research.

<table>
<thead>
<tr>
<th>A1. Name of Person/Student:</th>
<th>Allison Inoue</th>
</tr>
</thead>
<tbody>
<tr>
<td>A2. Student ID (quoted on library/swipe card):</td>
<td>5404006</td>
</tr>
<tr>
<td>A3. Email Address:</td>
<td><a href="mailto:a.inoue@btopenworld.com">a.inoue@btopenworld.com</a></td>
</tr>
<tr>
<td>A4. Name of Supervisor:</td>
<td>Jan Stothard</td>
</tr>
<tr>
<td>A5. Supervisor email address &amp; contact phone no.:</td>
<td><a href="mailto:jan.stothard@mypostoffice.co.uk">jan.stothard@mypostoffice.co.uk</a></td>
</tr>
<tr>
<td>A6. Programme (PhD, ProfDoc, MEd, PGCE, MSc, BA etc):</td>
<td>ProfDoc</td>
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</table>

<table>
<thead>
<tr>
<th>A7. Year of Study</th>
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<th>A8. Full/Part-time</th>
<th>Full-time</th>
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<tr>
<td>A9. Course Code</td>
<td>EDUC</td>
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<table>
<thead>
<tr>
<th>A10. Title of Project:</th>
<th>Thesis proposal Literacy Learning and Dyslexia: What Do Educational Psychologists Need to Know?</th>
</tr>
</thead>
</table>

**A11. Participant Recruitment Start Date:**

| A12. Project Submission Date: | May 2016 |
| On confirmation of ethical approval | |

| A13. Proposed Fieldwork Start Date: | September 2014 |

| A14. Location(s) where the project will be carried out: | Various local Educational Psychology Services |

| A15. Student Signature: | Allison Inoue |

The following section to be completed by the SUPERVISOR

<table>
<thead>
<tr>
<th>A15. Assessed Risk Level</th>
<th>X</th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
<th>NRES reqd.</th>
</tr>
</thead>
</table>

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SECTION B – DESCRIPTION OF RESEARCH

This section should be completed by the person undertaking the research.

B1. Provide an outline description of the planned research (250 words max).

Principle Research Question(s):

RQ1: What theoretical models and definitions underpin EPs’ understanding of dyslexia?
RQ2: What factors impact on EPs’ beliefs and practice in the area of dyslexia?
RQ3: What do EPs actually do in practice in terms of assessment and intervention planning for pupils with dyslexia or dyslexic-type difficulties?

Academic justification:
Despite advances in both theory and research from the fields of medicine, neuroscience, psychology and education have made significant contributions to our understanding of literacy learning and dyslexia (Washburn, Binks-Cantrell, & Joshi, 2014), trends in literacy standards through Key Stage 2 Standard Attainment Test (SAT) results reveal that approximately one in five children are still not meeting expected levels in literacy in England (Jama & Dugdale, 2012). Since the last recommendations made by the British Psychological Society (1999) 15 years ago, Educational Psychology Services (EPS) and EPs have had to respond to a number of substantial national legislative changes and important developments within their respective local authority (LA) services. Coinciding with such changes is the continued dispute over the validity of the term ‘dyslexia’ and ongoing debate about definitions, causations and designations (e.g. Shaywitz, & Shaywitz, 2003). However, there is currently little or no systematic literature that examines the experiential and contemporaneous perspectives of EPs with regard to how they conceptualise dyslexia or that document the potential impact of legislative, service delivery and training changes on how EPs’ practice.
B2. The principal research methods and methodologies are (250 words max):

**Project Design:**
The study is exploratory in nature and will utilise a case-study design consisting of three phases. Phase One of the research will involve convening an expert group to identify key themes to help formulate interview content for Phase Two. The second phase will consist of piloting and refining the interview questions for the third and final stage. The last phase will implement an interpretative multiple embedded case study approach (Merriam, 1995), examined via semi-structured interviews with six EPs.

**Data Collection Methods:**
*Phase One:* An ‘expert’ focus group will be convened to generate questions for the interviews. The expert group may consist of three to four academic psychologists and/or practicing EPs who are widely published in the area of dyslexia. They will be invited to attend via an email which will outline the aims of the study and the focus group. It is anticipated that the focus group will be no more than one hour in duration.

*Phase Two:* The efficacy of interview schedule and questions will be piloted on two practising EPs at this phase. Amendments to questions will be made accordingly.

*Phase Three:* Data will be collected through six face-to-face in-depth semi-structured interviews.

**Sampling:**
It is hoped that participants for the ‘expert’ focus group (Phase One) will be recruited from within the University of Manchester. Participants for Phases Two and Three will be chosen by purposive sampling based on the extent to which they would contribute to the research questions of the study (Vaughn, Schumm, & Sinagub, 1996). EPs will be selected on the following inclusion criteria: working within a LA EPS for the past six months and are accessible to the researcher. Recruitment will focus on gaining an equal representation of EPs from different stages of career development, backgrounds prior to training, and EPS model of service delivery (i.e. partially traded, fully-traded and non-traded).

**Method(s) of Analysis:**
The process of the ‘expert’ focus group will be recorded, transcribed and analysed using TA (Braun & Clark, 2006) to identify key themes to inform the interview questions. The transcription will be returned to the individuals who took part in the focus group to ensure the authenticity of the work. A section of the transcription will be scrutinised by a colleague to ensure the accuracy of key themes. The interviews for both the pilot study (Phase Two) and with the six EPs for the main study (Phase Three) will also be recorded and transcribed. Data will be analysed using a six phase model of TA to identify emergent subthemes and superordinate themes followed by cross-case analysis (Braun & Clarke, 2006). This systematic approach to TA comprise: familiarising yourself with your data, generating initial codes, searching for themes, reviewing themes, defining and naming themes and producing the report. Transcripts will be returned to participants to check the contents for accuracy (i.e. member checked). Additionally, data will be cross-checked by a colleague who is familiar with TA. The units of analysis will depend on the outcomes of the focus group and so cannot be stated until the end of Phase One.

NB: If your research methods include collection of image or video data, you must complete the VASTRE document (regardless of research risk).
B3. Please indicate which of the following groups are expected to participate in this research:

- [ ] Children under 16, other than those in school, youth club, or other accredited organisations.
- [ ] Adults with learning difficulties, other than those in familiar, supportive environments.
- [ ] Adults who are unable to self-consent
- [ ] Adults with mental illness/terminal illness/dementia/residential care home
- [ ] Adults or children in emergency situations
- [ ] Those who could be considered to have a particularly dependent relationship with the researcher
- [ ] Prisoners
- [ ] Young Offenders
- [ ] Other vulnerable groups (please detail)

OR

[ ] None of the above groups are involved in this study

B4. Number of expected research participants.

| Phase One | 3/4 |
| Phase Two | 2   |
| Phase Three | 6  |

B5. Will you conduct fieldwork visits?

[ ] Yes

Complete either the Declaration in Section D1 or the Fieldwork Risk Assessment (FRA) form if indicated in your RREA by criteria marked by an asterisk.

[ ] No

Complete the Declaration in Section D2

B6. The research will take place (tick all that apply):

[ ] within the UK

[ ] within the researcher’s home country if outside the UK

[ ] wholly or partly outside the UK and not in the home country of the researcher*

---

25 The person with learning difficulties has appropriate support within the setting from accredited support workers or family members.

26 The researcher’s ‘home country’ is defined as one in which (1) the researcher holds a current passport through birthright or foreign birth registration, (2) a country where the researcher has resident status, or (3) where the researcher holds a permit or visa to work, has a contract of employment, and is not a UK tax-payer.
* You must complete a separate Fieldwork Risk Assessment form

SECTION C – RESEARCH RISK ASSESSMENT
The following sections should be completed by the person undertaking the research in discussion with their supervisor/tutor.

C.0 – Criteria for research classified as HIGH RISK – National Research Evaluation Service

- The study involves primary research with adults who are unable to self-consent
- The study involves primary research with NHS patients
- The study involves primary research with prisoners/young offenders

Students - If any of these options apply, you should complete an NRES application. See your supervisor for further guidance.

Supervisors – Forward this RREA form to ethics.education@manchester.ac.uk when you are satisfied that the project requires approval through the Integrated Research Application Service (IRAS).

C.1 – Criteria for research classified as HIGH RISK (tick any that apply)

I/we confirm that this research:

- involves vulnerable or potentially vulnerable individuals or groups as indicated in B3
- addresses themes or issues in respect of participant’s personal experience which may be of a sensitive nature (i.e. the research has the potential to create a degree of discomfort or anxiety amongst one or more participants)
- cannot be completed without data collection or associated activities which place the researcher and/or participants at personal risk*
- requires participant informed consent and/or withdrawal procedures which are not consistent with accepted practice
- addresses an area where access to personal records (e.g. medical), in collaboration with an authorised person, is not possible
- involves primary data collection on an area of public or social objection (e.g. terrorism, paedophilia)
- makes use of video or other images captured by the researcher, and/or research study participants, where the researcher cannot guarantee controlled access to authorised viewing.
- will involve direct contact with participants in countries on the Foreign and Commonwealth Office warning list27 *
- involves face to face contact with research participants outside normal working hours28 that may be seen as unsocial or inconvenient*
- will take place wholly or partly without training or qualified supervision*
- requires appropriate vaccinations which are unavailable*
- will take place in locations where first aid and/or other medical support or facilities are not available within 30 minutes*

28 For example, in the UK, normal working hours are between 8am-6pm, Mon-Fri inclusive.
may involve the researcher operating machinery, electrical equipment, or workplace vehicles, or handling or working with animals at the research location(s), for which they are not qualified, and where a qualified operative or handler is not available to act as supervisor.*

* IF YOU HAVE TICKED these HIGH risk criteria you must also complete a separate Fieldwork Risk Assessment form

IF YOU HAVE ONLY TICKED HIGH risk criteria NOT marked (*) you MUST complete the LOW Risk Fieldwork Declaration on page 9 of this form

If no HIGH risk items are ticked supervisors and students should continue to section C.2 on the next page

---

C.2 – Criteria for research classified as MEDIUM RISK (tick any that apply)

I/we confirm that this research:

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>is primary research involving children or other vulnerable groups which involves direct contact with participants</td>
<td></td>
</tr>
<tr>
<td>study is on a subject that a reasonable person would agree addresses issues of legitimate interest, where there is a possibility that the topic may result in distress or upset in rare instances.</td>
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</tr>
<tr>
<td>is primary research which involves substantial direct contact with adults in non-professional roles</td>
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</tr>
<tr>
<td>is primary research which focuses on data collection from professionals responding to questions outside of their professional concerns.</td>
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</tr>
<tr>
<td>is primary research involving data collection from participants outside of the EU or the researcher’s home country via direct telephone, video, or other linked communications.</td>
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<tr>
<td>is practice review/evaluation involving topics of a sensitive nature which are not personal to the participants.</td>
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</tr>
<tr>
<td>involves visits to site(s) where a specific risk to participants and/or the researcher has been identified, and the researcher may not be closely supervised throughout</td>
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<tr>
<td>requires specific training and this is scheduled to be completed before fieldwork starts, or, training will not be undertaken but the research will be closely supervised by an academic advisor with appropriate qualifications and skills</td>
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<td>requires vaccinations which have been received, or are scheduled to be received in a timely fashion</td>
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<tr>
<td>requires face to face contact with research participants partly outside normal working hours that may be seen as inconvenient</td>
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<tr>
<td>takes place in, or involves transport to and from, locations where the researcher’s lack of familiarity may put them at personal risk</td>
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<td>may require the operation of machinery, electrical equipment, or workplace vehicles, or handling or working with animals at the research location(s), for which they are not qualified, but such operation or handling will be undertaken under close supervision from a qualified operative or handler</td>
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</tbody>
</table>

* IF YOU HAVE TICKED these MEDIUM risk criteria you must also complete a separate Fieldwork Risk Assessment form

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29 This does not include research in locations where children are present if they are not the focus of the research.
30 For example in focus group or one to one interview in private locations, and not ‘market research’ which is characterised by brief interaction with randomly selected individuals in public locations.
31 In the UK normal working hours are between 8am-6pm, Mon-Fri inclusive.
IF YOU HAVE ONLY TICKED MEDIUM risk criteria NOT marked (*) you MUST also complete the LOW Fieldwork Risk Declaration on page 9 of this form.

If none of the HIGH or MEDIUM risk criteria have been ticked, supervisors and students should continue to section C3 on the next page.

C3 – Criteria for research classified as LOW RISK

C 3.1  **NO human participants**
I/we confirm that this research (tick as appropriate):

- is not of high nor medium risk to the researcher, in accordance with the criteria provided in sections C.1 and C.2 respectively.
- is Secondary research (i.e. it will use material that has already been published or is in the public domain).
- is Secondary data analysis (i.e. it will involve data from an established data archive)

If you have ticked one of the options in C3.1 above, and C3.2 does not apply, you should now complete section C3.3.

C 3.2  **Human participants**
I/we confirm that this research (tick as appropriate):

- is not of high nor medium risk to the researcher, or participants, in accordance with the criteria provided in sections C.0, C.1 and C.2 respectively.
- A reasonable person would agree that the study addresses issues of legitimate interest without being in any way likely to inflame opinion or cause distress.
- is Practice review (i.e. the research involves data collection from participants on issues relating to the researcher’s professional role, in a setting where the researcher is employed or on a professional placement)
- is Practice evaluation (i.e. the research involves data collection on a student’s professional role, in a setting where the researcher is employed or on a professional placement. The data collected will be used for comparison against national or other targets or standards).
- is Primary research on professional practice with participants in professional roles conducted in their work setting.
- is Market research (i.e. the research may involve data collection from the general public approached or observed in public locations for the purposes of market investigation).
- is Primary research using a questionnaire completed and returned by participants with no direct contact with the researcher.
- is part of a research methods course and participant groups are limited to peers, colleagues, family members and friends.
- is a Pilot Study

C 3.3  **Research context**
I/we confirm (tick as appropriate):

---

32 A reasonable person would agree that the study includes no issues of public or private objection, or of a sensitive nature.
the location(s) of the research are not listed on the Foreign and Commonwealth Office warning lists.\(^3\)

the researcher is not in a position to coerce potential participants/secondary data owners

 Primary or practice research involves no vulnerable group (as indicated in question B3).

 Primary or practice research will be conducted in a public space or building (e.g. the high street, the University campus, a school building, etc)

D. LOW Risk Fieldwork Declaration

Students not directed to complete the separate Fieldwork Risk Assessment in Section C should tick the items in D.1 or D.2 to confirm the LOW risk nature of their fieldwork visits. Then sign the Declaration in D.3

D.1 Fieldwork visits (If you will not make any fieldwork visits, tick the alternative items in D.2 below)

I/we confirm:

- the researcher will not travel outside the UK or their home nation.
- the fieldwork does not require overnight stays in hotels or other types of public temporary accommodation.
- public and private travel to and from the research location(s) are familiar to the researcher and offer no discernable risk.
- the researcher will not travel through, or work in research locations which may have unlit areas, derelict areas, cliffs, or local endemic diseases
- the researcher will carry only necessary personal items when travelling to, and within, research locations.
- no specific vaccinations are required to undertake this research
- first aid provision and a trained first aider are available where appropriate
- the researcher will only operate machinery, electrical equipment, or workplace vehicles, or handle or work with animals at the research location(s) if they are qualified to do so
- the fieldwork will be carried out within normal working hours\(^4\) at a time convenient to participants.
- the researcher will not give out personal telephone information to participants, or owners of secondary data resources, in relation to the research project
- the researcher is fully aware of and sensitive to cultural and religious practices of participant groups, and will act accordingly.
- primary or practice research will not involve fieldwork visits to private homes.
- the researcher will provide a regularly updated fieldwork visit schedule to a nominated University contact.
- the researcher will carry a Manchester Institute of Education Emergency Contact Information Card during all fieldwork visits.

If you are unable to tick all items above, you must complete a separate Fieldwork Risk Assessment form.


\(^4\) For example, in the UK normal working hours are between 8am and 6pm Mon-Fri inclusive.
D.3 Researcher Declaration:

By signing this completed document, I declare that the information in it is accurate to the best of my knowledge and that I will complete any actions that I have indicated I will complete.

Signature: Allison Inoue  Date: 9.6.14

Name (in capitals): ALLISON INOUE  Student ID: 5404006
APPENDIX G - Participant Information Sheet – Paper 2

You are being invited to take part in a research study as part of a student project toward a doctorate of educational psychology. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Please ask if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part. Thank you for reading this.

Who will conduct the research?
Allison Inoue (Trainee Educational Psychologist)

What is the aim of the research?
The aim of the study is to explore EPs’ current attitudes, knowledge of and practice around literacy learning and dyslexia. Within this, there are three fundamental objectives, 1) to provide insight into EPs’ beliefs about dyslexia and its nature, 2) to explore what factors affect/impact on those beliefs/understanding, and 3) to explore how EP beliefs and other factors impact on actual practice.

Why have I been chosen?
You have been chosen because you are an Educational Psychologist who has been working within a local authority, partially traded or fully traded Educational Psychology Service for the past six months.

What will you be asked to do if you took part?
You will undergo an interview where you will be asked a number of questions relating to your views on dyslexia and your current practice in relation to literacy learning and dyslexia. The interview will last between 30-45 minutes.

What happens to the data collected and how is confidentiality maintained?
The interviews will be audio-recorded and transcribed by the researcher. Any names or identifying information will be changed to ensure anonymity. Your will receive a copy of the transcription to check for accuracy. The recordings will then be erased and a copy of the transcription will be kept by the researcher. All data will be stored securely. A report will be written based on the findings and submitted to the University in partial fulfilment of the Doctorate in Educational and Child Psychology. Feedback on the findings can be arranged for you at a convenient time. You will not be identifiable from details reported in the thesis or any publications resulting from the study.
What happens if I do not want to take part or if I change my mind?
Participation in the study is purely voluntary. If you decide to take part you will be given a consent form to sign in addition to this information sheet. You are free to withdraw at any time from participating in the study, even after you have signed the consent form. You do not have to give a reason for withdrawing and doing so will have no detrimental effects or repercussions for you.

Where will the research be conducted?
The research will be carried out in your Educational Psychology Service or Manchester University within normal working hours. Interview times will be arranged to suit you.

Will I be paid for participating in the research?
No

What is the duration of the research?
1 x 30-45 minute interview (per participant)

Will the outcomes of the research be published?
The information will be used for a thesis in partial fulfilment of a Doctorate in Educational and Child Psychology. It is hoped that the findings will be disseminated through publication of part or all of the findings.

Criminal Records Check (if applicable)
I have undergone a satisfactory criminal records check to work with vulnerable adults and children and have an up-to-date certificate with DBS number.

Contact for further information
Allison Inoue
Email: allison.inoue@postgrad.manchester.ac.uk

What if something goes wrong?
Should you wish to contact my supervisor, please contact Dr J Stothard at the University of Manchester.
Email: jan.stothard@mypostoffice.co.uk
If there are any issues regarding this research that you would prefer not to discuss with members of the research team, please contact the Research Practice and Governance Co-ordinator by either writing to 'The Research Practice and Governance Co-ordinator, Research Office, Christie Building, The University of Manchester, Oxford Road, Manchester M13 9PL', by emailing: Research-Governance@manchester.ac.uk, or by telephoning 0161 275 7583 or 275 8093
Introduction:
I am interested in gathering information about a variety of issues in relation to dyslexia & EP practice. I have devised a variety of questions, designed to provide a structure/framework to help me collect all the relevant information. This is a semi-structured interview & as such, it is likely that in the course of discussion, some questions may already have been answered or answered in a different order. Possible prompts for questions are listed in bullet point lists below the relevant question. It is, however, likely that, depending on your responses to a question, I may seek clarification or further information by using additional prompts.

Section A – theoretical background & issues

1. What do you understand by the term dyslexia?

2. What has informed that understanding?
   - Do you use any psychological models to help you conceptualise dyslexia?
   - Do you have any particular definition of dyslexia which you use? (BPS 1999, Rose etc)
   - If so, which aspects of the definition you use do you find helpful & which less so?

3. The various definitions of dyslexia obviously acknowledge significant difficulties in acquiring literacy skills. Some, but not all, definitions include the presence of a range of other associated problems. What are your views on this?
   - Do you think there are certain key elements/difficulties which are essential? (i.e. if you haven’t got… then you are not dyslexic)
   - In your casework experience what kind of difficulties have you found?
   - As a developmental psychologist, do you think dyslexia looks different at different ages?

4. One thing I’ve noticed as a TEP coming into the profession is that some EPs don’t seem very interested in dyslexia, so I was wondering what your views are on why this is the case.
   - Is it about the training, knowledge, skills etc…?
   - Is it about role?
5. How do you feel your background & experience prior to becoming an EP has prepared you to work with staff and parents in supporting learners with dyslexia/literacy difficulties?

6. How do you think that the fact that new EPs now come into the profession from varied backgrounds will impact on how they support staff, parents and pupils with regard to dyslexia/literacy difficulties?

7. One of the major areas of contention around dyslexia is the issue of diagnosis. I wondered what your views were about this.
   - Is it the EP’s role to give a diagnosis?
   - If so, under what circumstances would you give a diagnosis of dyslexia?
   - If not, whose role is it?

Section B – EP Role in relation to casework

8. Please can you bring to mind a recent piece of casework in which dyslexia was hypothesised as the main or a major contributory factor in the pupil’s difficulties. Please describe:
   - what information you felt it was essential to collect in consultation/information gathering with staff, parent/carer & pupil
   - what individual assessment you undertook with the pupil & why

9. Having gathered all the necessary consultation information, observations & assessments in a ‘dyslexia’ case, please discuss your role in relation to support & intervention.
   - Specifically in terms of improving the pupil’s literacy attainments

Section C – the changing context of EP service delivery

10. With the majority of EP services now operating a partially or fully traded model of service delivery, what impact do you think this has had/will have on the way you work in the area of dyslexia?

11. What impact do you think the changes to the Code of Practice & the introduction of EHC Plans has had on your practice in this area?
   - In terms of writing specific outcomes

12. Is there anything that you would like to add, either to expand on any of the topics covered or anything you would like to discuss that has not been included in the interview questions?
General data:

- Number of years in the EP profession?

- Experience of working with children and young people prior to training as an EP?

- In what context?

- Number of years working in this context?
APPENDIX I - Six stages of thematic analysis (Braun & Clarke, 2006)

Braun and Clarke’s six phase thematic analysis guide was used to analyse the qualitative data gained through the semi-structured interviews with the EPs.

1. **Initial reading and familiarisation of the text**

   The data from the six face-to-face, in-depth semi-structured interviews were individually transcribed, read and reread, noting down initial ideas.

2. **Generating initial codes**

   Interesting features of the data were coded in a systematic fashion using NVivo (referred to as nodes on NVivo) across the entire data set. NVivo allowed for relevant data to be attached to each node, which were then exported into separate files in a Word document.

3. **Searching for themes**

   Codes from each transcript were collated, by hand, into potential themes. Each code was considered for a second time and any that were too similar to warrant a separate code were subsumed into an existing one.
4. **Reviewing themes**
A thematic map of analysis was generated using post-it notes comprising themes and sub-themes. This was initially completed for each interview (each colour post-it represents an EP’s interview) and then subsequently for each research question (see thematic map below).

5. **Defining and naming themes**
Phase 5 comprised the ongoing analysis to refine the specifics of each theme, and the overall story the analysis tells, generating clear delineations and names for each theme. Figures 2, 3, and 4 were created to illustrate the themes and subthemes.

6. **Producing the report**
Producing the report provided the final opportunity for analysis. Extracts were selected to ‘tell the story’ in the EPs’ own words (word count permitting) and to relate back to the research questions and literature.
**APPENDIX J - Examples of Developing Themes**

Table 30. Developing themes and sub-themes

<table>
<thead>
<tr>
<th>Original Transcript (nodes highlighted)</th>
<th>Emergent Codes</th>
<th>Main Themes</th>
<th>Sub-Themes</th>
</tr>
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<tbody>
<tr>
<td><strong>RQ1</strong> What theoretical models and definitions underpin EPs’ understanding of dyslexia?</td>
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<tr>
<td><strong>Theme 2 – Theoretical Models</strong></td>
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<tr>
<td><strong>Do you use any psychological or theoretical models to help you conceptualise dyslexia?</strong></td>
<td>None used</td>
<td>Theoretical models</td>
<td>• DECP</td>
</tr>
<tr>
<td></td>
<td>Not used</td>
<td>None – a strengths and weaknesses model</td>
<td>• Cognitive - phonological, visual, auditory, memory</td>
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<tr>
<td></td>
<td>Not helpful</td>
<td>Cognitive models</td>
<td>• Holistic</td>
</tr>
<tr>
<td></td>
<td>No clear and consistent theoretical models used</td>
<td>Whole child</td>
<td></td>
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<tr>
<td></td>
<td>DECP definition</td>
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<tr>
<td></td>
<td>Cognitive models</td>
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<td></td>
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<td></td>
<td>Whole child</td>
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<tr>
<td><strong>Erm I don’t. I don’t actually think I do. I might do but I don’t know what they are. I use a strengths and weakness based model</strong> (EP1).</td>
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<td>It’s a very functional cognitive psychology kind of approach is the way I would conceptualise it and it is about phonological processing (EP2).</td>
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<td>Well not really no. I use the DECP definition and that is all I really use erm and to be fair I don’t use it very often because I would only even talk about dyslexia if a parent brought it up possibly or if it was brought up by somebody else. For me I don’t find it a particularly useful thing to talk about in a way, as all I am interested in really is, what are the difficulties of this child and what do we need to do to address those difficulties? And once we have done that I am happy in a sense, I don’t need for myself to decide whether this is dyslexia or not (EP3).</td>
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<td></td>
<td>Not explicitly in my practice (EP4).</td>
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<td>But I do think it comes in to all our work so that when we are asked to become involved with a young person or with a difficulty or whatever, they often say ‘this is the problem’ ok? So you go in and this is the problem, but even after the</td>
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initial consultation the problem that has been raised can often be changed. So they might identify ‘X’ as the difficulty but actually often by the end of the initial consultation ‘X’ might still be a part of it but there are additions to it, and I think that when we are looking at a young person we are kind of looking at. I would be looking at the whole child I wouldn’t be focused so narrowly on one specific area. You know when people are writing, schools are writing a request for, I always tell them, it is a bit naïve but I always tell them to draw a little stick figure and kind of, because they’re trying to express or show that the child has to be on complex needs and what they often do is you know ‘oh he has got a behaviour problem’ and what they forget to do is to say why that behaviour problem as occurred? Is language, you know, one of the difficulties? Is it a social communication difficulty? Is it a spatial difficulty? You know, in as much as they have poor spatial awareness and therefore the kids are going ‘Jonny is pushing me’ but actually he is not pushing him at all, you know he needs some help in terms of understanding how he fits in space. So you know, I think when you know, when you are asking me kind of what we apply, I think we very naturally apply all those things erm but in a way that perhaps can’t be seen, cos you are not gonna sit there and say ‘I’m just going to apply this theory now’ (EP5).

Having some kind of substrate or even abandoning dyslexia and just taking about what the actual problem is, so if it is phonological processing difficulties (or if it is visual or auditory processing difficulties) or memory difficulties or whatever it is, or a combination rather than just saying it is dyslexia because that does not
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<th>Original Transcript (nodes highlighted)</th>
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<th>Sub-Themes</th>
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</thead>
<tbody>
<tr>
<td><strong>RQ2 What Factors Impact on EPs' Beliefs and Practice?</strong></td>
<td><strong>Theme 1 - Values</strong></td>
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</table>
| What is your opinion on labelling and do you think EPs are more comfortable using some labels (e.g. ADHD, autism) than others? If so, why do you think this is the case? | Contradictions – EPs don’t give labels because of values but some labels are ok if it’s clear what ‘it’ is and I don’t have to diagnosis it (e.g. autism ok, dyslexia not ok). | Values | • Labels  
• Diagnosis  
• Definition (tie in with theme 2) |
| Yeah it is for me. But I feel very uncomfortable using labels and I will avoid them at all costs and I think we have to, it’s like we were talking about the other day, about our values and I think we have to go back to our core values and one of mine is that I work within a strengths and difficulties framework. So if a child has ADHD or autism what does that mean? What are their strengths and difficulties? And how do we support those difficulties with those strengths? And it is the same for dyslexia it comes back to my values for people as human beings and the ability to grow and move and change and I think sometimes those labels don’t allow us to move and grow and change (EP1). | Not the role of an EP Responsibility Not wanting to diagnose Knowledge/skill of teachers (e.g. being able to ‘notice’ and ‘adjust’) Unclear definition | | |
| Autism I feel the evidence is a bit clearer about what it is you know and what the key things are, but for me I feel comfortable, and I am being quite honest, about using a label of autism because it is not me that is having to diagnose it, it is the medics that are diagnosing it so it kind of takes the responsibility away from me for being forced to use a medical model when actually I am not one hundred percent clear about what that is and as a kind of medical diagnosis (EP1). | | | |
| Well noticing and adjusting is a very difficult skill to do and I think you’re often asking TAs | | | |
who are relatively unskilled and not very experienced at times to apply what is a very difficult skill. You have to tailor teaching to the needs of the child and then you wouldn’t need labels but that’s a very difficult skill and may be reliant on how teachers are trained and how we support new teachers in the first few years. I think many teachers are coming out of teacher training without much understanding of SEN at all (EP3).

In this authority we just don’t give labels that is not the role of the EP (EP4).

That was my feeling when I worked in my first authority and why I wasn’t opposed to getting involved in the tripartite assessment because I felt that as EPs we can actually give a lot to that process, and that was ASC and I know it is very different but in terms of thinking is this an autistic spectrum condition or is this something else? (EP4)

I am not particularly in to labels, I just think that you identify the difficulty and you address the difficulty erm but I also appreciate that you know people do like to have a label and if they like to have a label then I am quite happy to provide that if I feel that it is appropriate to give and whether the label is going to be supportive to this child or not. I discussed earlier about my slight reservation about that bit that I have to rely on, it sounds awful but I have to rely on the truthfulness of somebody else saying that they have put those interventions in place and whether they have been marginally or not successful. So I do have a little bit of a hiccup about that but I think that is also why I do that very holistic view of a child when I am doing the assessments and that is why, so some of my colleagues might just rely on the definition and
that is why potentially I would also do the cognitive. Maybe it is because you know, I am older, sounds awful that doesn’t it? But I was round when the discrepancy model was in and maybe it is because of that, I don’t know but it is just that extra level of erm identification isn’t it? You know so yes I think it fits the definition but let me just check it out with another level of assessments you know? And also those phonological assessments as well, so there is kind of lots and lots of strand to it isn’t there? And actually you know, if you are looking to provide a diagnosis it is not a light touch it is far from it. So when I say you know, schools think dyslexia is down there in the whole scheme of things, actually it is just as important as a child with autism, you know it is just as important as, because actually it is actually quite complex. You know it is not that light touch difficulty or problem or whatever word anybody wants to use in terms of the young people and that condition (EP5).

I suppose that is what I am striving for, if people would. I think ed psychs would feel less confused and uncomfortable if it was very clear, as it was way back and there are lots of problem’s with this, but I bet ed psych’s wouldn’t be so worried about diagnosing dyslexia if it was very clear that if you were there years behind with your reading and spelling age that counts because it is very clear, but because it is so hazy people don’t like, you know people worry that they are mislabelling. I think a lot of educationalists have a problem with labels in general which I don’t have as signposts, I do have as a sort of assumption about what a child needs, but I do think as I say, as a parent it is useful to have that, sort of a hook to hang your
understanding on but it has to be a starting point (EP6).

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<tr>
<th>Original Transcript (nodes highlighted)</th>
<th>Emergent Codes</th>
<th>Main Themes</th>
<th>Sub-Themes</th>
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<tbody>
<tr>
<td><strong>RQ3</strong>: What do EPs do in Terms of Assessment &amp; Intervention for Pupils with Dyslexia?</td>
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<tr>
<td><strong>Theme 2 - Interventions</strong></td>
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<tr>
<td>Can you think about a time or situation where you’ve advised or talked about a specific literacy or dyslexia intervention?</td>
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<tr>
<td>So I will often refer teachers to the ‘What works?’ book, I can’t remember who wrote it?</td>
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<tr>
<td>Greg Brooks – what works for children and young people with literacy difficulties.</td>
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<td>Brooks, I was gonna say Brown but it wasn’t Brown, yeah it is Brook, ‘What Works?’ and for me often it’s that, I often like to talk about precision teaching and schools don’t often know what precision teaching is so it is about one, offering them training around that and explaining to them actually they are the teachers, they know the approaches that work and it is about, the precision teaching is about using their approaches and using what works best for them and that child but doing it little and often, so to increase that fluency and build that up. Erm in terms of other literacy interventions I will find out what the school uses erm because I don’t want to suggest things that they are going to have to spend a fortune on. So I find out what they use and try and feedback around the evidence base for that, but often for these children you know it isn’t off the shelf packages that they need and they will have had that so it is about then targeting it. So then what, how can we target that? And often precision teaching is a really good approach for that.</td>
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<tr>
<td>Precision teaching (is this an intervention?)</td>
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<tr>
<td>Affective factors (e.g. motivation)</td>
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<tr>
<td>Not much knowledge about interventions</td>
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<tr>
<td>Not a lot</td>
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<tr>
<td>‘Off the shelf’ packages – contradiction</td>
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<tr>
<td>Relying on specialist teachers</td>
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<tr>
<td>Nothing specific despite schools liking specific advice</td>
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<tr>
<td>Limited influence on intervention</td>
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<tr>
<td>Age appropriate interventions</td>
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<tr>
<td>Named programmes e.g. Toe by Toe</td>
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<tr>
<td>Interventions</td>
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<tr>
<td>• Specific to literacy difficulties</td>
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<tr>
<td>• Affective (e.g. improving motivation, self-esteem, social, emotional and mental health)</td>
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<tr>
<td>• ‘Other’ (e.g. supporting CYP, relying on others)</td>
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Working on his motivation and his view of himself, and then the reading hopefully will; reading, writing and literacy will hopefully follow on. So that would be my starting point for him (EP1).

And so my thing is, if that is the knowledge then as an EP it’s good to know that and two, there needs to be research and evidence on what works. And I don’t know if there is, to be honest I am ignorant to that. Is there evidence to say that there are interventions that work with this group? (EP2)

Erm that is, I have not done anything. I have gotta be honest because for most of my career I work with a specialist teacher so I would refer to the specialist teacher and I would ask for their input and for them to work with the teaching assistant to provide a programme and to advise on programmes (EP2).

I have sort of recommended things like Nessy or Beat Dyslexia, so I have recommended specific programmes for them to look at and secondary I have recommended things like Toe by Toe or Read Write Spell which are more geared more towards secondary. It has been advising on programmes really

Not a lot really is the honest answer. We talk about interventions and we talk about what sort of interventions they might use but on the whole we’d probably be limited to what the school already have on the shelf or what the school is already familiar with so we’d probably have to go with that. I often talk about Precision Teaching in relation to skills but the school’s ability to apply that is quite variable. It often amazes me when I talk about Precision Teaching and I say ‘do you know what that is’ and they say
'oh yes, we know what it is’ and actually they have no clue what it is but they’ll say they do and often we’ll agree that they’ll do Precision Teaching and when you come back and review if they haven’t done anything like that so the problem is your ability to actually influence the intervention is quite limited because I’m not in the school on a regular basis well I am but it’s only periodic it’s not erm I’m not in every week so I can’t really so ‘let’s have a look what you’re doing this week’. And obviously my time is quite limited there and there’s always other children to see. So all we can really do is talk about the sort of things they could think about doing, what sort of things they should put in place and then I’ve really got to trust them to implement and we can talk about how frequently it should be done and stuff like that but at the end of the day it’s down to them. At the end of the day, my ability to affect that child’s learning is very small. The people who can affect that child’s learning is that teacher and the TA if they’ve got one. They’re the key elements to it. They’re the ones that are going to make the difference, I’m not going to make a difference at all really (EP3).

I can’t remember the specific intervention that I recommended but there is a literature review of appropriate programmes and I think I looked at that and took some information out of that, or I might have just directed them to the paper rather than getting in to recommending any specifics, but I think schools do like that when we do that (EP4).

Well we do very little to do with dyslexia in X it is mostly the remit of the specialist teaching teams so I feel quite de-skilled in the area. I insist on them using specialist teachers. I get
round it that way (laughing) because I know the teacher can’t and I know what they have got to do, you know the way I talk to my schools about it, I sort of say ‘you have got to speculate to accumulate with this with this youngster’ you know if you don’t use your totality and delegated resources there isn’t anything anyone is going to do for you, you have got to spend the money on the children that need it and you have got to demonstrate that you have spent six thousand pounds before you can turn to the local authority. So you know, some specialist teaching is not an unrealistic thing to do, I’m probably quite a horrible EP that’s probably why I have only got one school isn’t it? (laughing) (EP5).

I suppose that is what the MULP did quite well, it did tell teachers and sort of hold their hands through an intervention. I forget what the EPs did, I think it was a pre-meeting and a post-meeting but there were some materials that went with it so it was quite guided, you can probably get them (EP5).

And one of the other things for me also in terms of interventions is that real need to ensure that the intervention one, fits the needs of the child and two, is appropriate to their chronological age. So you know, I often see young people in year six still being given Oxford reading Tree and I’m thinking ‘oh my goodness me, no, no, no’ and I am thinking the young people themselves in year six are thinking ‘how many more times am I gonna see this book?’ or ‘how many more times am I gonna have to go through initial letter sounds?’ EPs need to help schools understand that we need to be a little bit different in our approach to the young people when they are getting a little bit
older and actually you know, you put an Oxford Reading Tree in front of a year six child and actually why are you surprised that they are flinging it? You know, why are you surprised that they are stomping off outside the classroom? You know I think one, it has got to erm, the intervention needs to use the child’s strengths, I think the intervention needs to be age appropriate and I think the intervention needs to be specific to that young person’s needs. It always surprises me when I say things like you know ‘actually just pick up a favourite magazine, blow up the article and use that’, it doesn’t matter what they read even if it is instructions about how to use their X-Box or you know, how to use a game for their DS, I’m not with all that but do you know what I mean?
APPENDIX K - Epistemology and Research Paradigm

Methodology

An inductive (qualitative) approach was adopted as an alternative to a deductive (quantitative) approach which can be considered as grounded in ‘… best guesses and hunches of the investigator’ (Regnier, Salmela, & Russell, 1993, pg. 291). In an area seemingly dominated by quantitative measures (e.g. psychometric testing) and arguments over objective definitions, it was felt that this approach may be most limited when comprehensive understanding about what EPs ‘do’ in relation to dyslexia is scarce. Furthermore, deductive approaches which rely on a priori understanding of the phenomena may have allowed professionals to collude with, and hide behind, definitions which frame dyslexia as solely a reading problem. Therefore, a quantitative approach was dismissed on the grounds that it was unlikely to provide the depth of information required from this exploratory study. Furthermore, a purely inductive approach, where elements of the solution come from the ‘collective wisdom and rich anecdotal evidence from the language of (participants) themselves’ (Regnier et al., 1993, pg. 292), may help to better illuminate an area of professional practice which has been in the dark for a number of years.

Several methods were considered for this research such as grounded theory (Strauss & Corbin, 1990), discourse analysis (Potter & Wetherell, 1987), narrative analysis (Murray, 2007) and thematic analysis (Braun & Clarke, 2006). Narrative analysis is often used when exploring individuals’ experiences and may focus on identity and self-construction (Crossley, 2007). This approach was not felt to be the most appropriate for this research as it did not fit the research questions; rather than being about a particular event or experience the participants were reflecting on certain concepts. Grounded theory was also considered, but as the research aim was not theory development, this approach was discounted. Instead, thematic analysis (TA) was chosen as the analytic method due to its flexibility, both in how it can be applied and in not being wedded to a particular theoretical/epistemological position.
Critique of methodology

A number of limitations to the study design have been identified. Firstly, whilst case studies can yield rich qualitative information and provide insight for further research, the low participant numbers affect the generalisability of the findings. However, using six participants at different stages in their career potentially increases depth and breadth of understanding of how EPs practise currently. Secondly, whilst participants were selected by opportunity sampling they may have agreed to participate based on their interest in dyslexia. Therefore the findings may be biased toward those EPs with strong opinions about dyslexia. Social desirability factors may also feature. Finally, a general epistemological limitation concerns the role of language in facilitating data generation (Willig, 2008).

Trustworthiness of the Data

Controversy surrounding dyslexia (e.g. a lack of consensus over definitions, designations, causation, severance points for diagnosis) has led to a great deal of confusion and misunderstandings for learners with dyslexia, parents and professionals (Reid, 2003). This, coupled with the experiences and ‘world view’ of the researcher, could impact on the trustworthiness of the data. Researcher bias may therefore be construed as a major issue in the research design. Consequently, specific steps taken to mitigate this included:

1) Using an ‘expert’ focus group to frame the interview questions and ‘ground’ the researcher’s thinking to prevent the introduction of bias into the questions. In other words, rather than being researcher led, it was important to capture the major controversies and confusions from those ‘experts’ who are likely to understand them. It provided an opportunity to explore how they think and talk about dyslexia free from researcher bias, and whether their ideas are shaped, generated or moderated through conversation with other experts in the field.

2) The ‘expert’ focused group was also used for methodological triangulation for the initial interview questions.

3) Theory triangulation for data collected was used through supervision with various qualified EPs with differing views of dyslexia and by colleagues familiar with TA.
4) Whilst researcher biases are typically ‘bracketed off’ during the interview and data collection/analysis phases, the researcher adopted a phenomenological stance, where the researcher is viewed as inseparable from the assumptions and preconceptions about the phenomena of study (Honderich, 2001). Since the researcher cannot occupy a position outside of experience, it is not possible to completely set aside researcher biases. Instead an attempt was made to explain them and to incorporate them into the research findings (Reid, Flowers, & Larkin, 2005) and was viewed as adding to the findings. Implicit in this is the acknowledgement of the subjectivity of both participants’ and researcher’s interpretations and the researcher’s position or biases from the outset (see Preface section).
APPENDIX L - References for the Appendices


