What are the Contexts and Mechanisms That Contribute Towards Educational Psychologist Use of Dynamic Assessment Having Positive Outcomes?

Using Thematic Analysis Within a Realist Evaluation Framework to Explore Educational Psychologist Perspectives.

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Summary

This thesis portfolio comprises three chapters. The first chapter is a semi-systematic literature review which explores the use of Dynamic Assessment (DA) by Educational Psychologists (EPs) in the United Kingdom (UK). This includes how DA is defined, how and why the use of DA by EPs in the UK has changed over time, and the outcomes that occur when EPs use DA. The current literature is critically discussed and areas for future research are identified.

The second chapter details an empirical study. This qualitative study uses thematic analysis within a realist evaluation framework to explore the perspectives of EPs regarding the contexts and mechanisms that contribute to EP use of DA having positive outcomes. Seven EPs were interviewed and context, mechanism, outcome themes and hypotheses were developed from this data, along with an initial programme theory. Context themes suggest that others need to be involved in the DA process, the use of DA is an active decision made by the EP within a system and that DA theory can be applied in different ways. Mechanism themes suggest that during DA, a new and shared understanding of the situation can be co-constructed, the child has a positive experience and EPs are active participants. Outcome themes suggest that DA can facilitate changes in thinking and behaviour, but that longer-term outcomes are difficult to evaluate. The initial programme theory was then shared with a focus group of EPs. Findings are presented and discussed in relation to existing theory and literature, with implications for EP practice, critical appraisal of the study and areas for further research also considered.

The final chapter is a critically reflective account of the research process. This explores the journey from choosing a research topic, through to designing the study, and collecting and analysing the data. Consideration is also given to the contribution of the research to personal and professional knowledge, implications for practice and proposed dissemination.

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List of Acronyms

BERA	British Educational Research Association	
BPS	British Psychological Society	
BPS CoHRE	British Psychological Society Code of Human Research Ethics	
CATM	Children's Analogical Thinking Modifiability test	
CAP	Cognitive Abilities Profile	
ССРАМ	Children's Conceptual and Perceptual Analogical Modifiability test	
CITM	Children's Inferential Thinking Modifiability Test	
СМВ	Cognitive Modifiability Battery	
СМО	Context, Mechanism, Outcome	
COMOIRA	Constructionist Model of Informed and Reasoned Action	
CSTM	Children's Seriational Thinking Modifiability Test	
DA	Dynamic Assessment	
EHC	Education, Health and Care	
EHCP	Education, Health and Care Plan	
EP	Educational Psychologist	
EPS	Educational Psychology Service	
FG	Focus Group	
HCPC	Health and Care Professions Council	
HCPC SoPs	Health and Care Professions Council Standards of Proficiency	
HCPC SoCPE	Health and Care Professions Council Standards of Conduct Performance and Ethics	

LA	Local Authority	
MLE	Mediated Learning Experience	
SCM	Structural Cognitive Modifiability	
SEN	Special Educational Needs	
SEND CoP	Special Educational Needs and Disabilities Code of Practice	
SENDCo	Special Educational Needs and Disabilities Co- Ordinator	
TEP	Trainee Educational Psychologist	
UEA	University of East Anglia	
UK	United Kingdom	
ZPD	Zone of Proximal Development	

A note on language: Throughout this thesis portfolio the terms 'child' and 'children' will be used, with acknowledgement that EPs also work with young people up to the age of 25. Similarly, the term 'school staff' will be used to include Special Educational Needs and Disabilities Co-Ordinators, teachers and Learning Support Assistants who may be involved throughout the DA process.

Chapter 1: Literature Review

The Use of Dynamic Assessment by Educational Psychologists in the United Kingdom: A Semi-Systematic Review of the Literature

1.1. Introduction

1.1.1. Background

The role of Educational Psychologists (EPs) in the United Kingdom (UK) has historically included assessment of children and young people as one of its core functions, alongside intervention, consultation, research and training (Farrell et al., 2006; Scottish Executive, 2002). In addition, assessment has been reported to be one of the most valued aspects of the EP role by school Special Educational Needs and Disabilities Co-Ordinators (SENDCos; Ashton & Roberts, 2006). Currently, EPs have a statutory requirement to provide psychological advice as part of the Education, Health and Care (EHC) needs assessment process (Department for Education & Department of Health and Social Care, 2015), which may have contributed to the EP role being inextricably linked with assessment (Atkinson et al., 2022).

One method of assessment approach is Dynamic Assessment (DA). DA is used with varying frequency amongst EPs, although one recent study suggested that use has recently increased (Atkinson et al., 2022), with another indicating that DA is being used by a majority of Trainee Educational Psychologists (TEPs; Murphy, 2023). Literature on DA is broad and wide-ranging, covering a number of different fields, topics and debates. Some of this relates to the use of DA by EPs in their assessment practice. However, there are felt to be gaps in knowledge. Barriers to the use of DA by EPs have been documented (for example as discussed by Callicott et al., 2019), and include a lack of research written by practitioners, and a lack of standardised procedure, with DA being described as a 'complex and at times poorly defined area of EP practice for EPs' (Green & Birch, 2019, p. 96). It has been suggested that work is needed to make DA more attractive, relevant and accessible to EPs and service users (Hill, 2015).

Understanding and interpreting evidence is an important part of the EP role (Boyle & Kelly, 2016), and EPs have been described as 'scientist-practitioners' (Fallon et al., 2010, p. 4). Professional guidelines (Health and Care Professions

Council, 2023) state that EPs must understand the theoretical basis of, and variety of approaches to, assessment and intervention (12.5), be able to engage in evidence-based practice (11.1), and be able to justify their decisions and actions (4.1). Considering the research into the use of DA by EP practitioners in the UK therefore appears to be appropriate and relevant to the current professional context.

1.1.2. Objectives for This Review

This literature review aims to explore the use of DA by EPs in the UK. In doing so, it will seek to answer three key questions:

- How is DA defined?
- How and why has the use of DA by EPs in the UK changed over time?
- What are the outcomes¹ that occur when EPs in the UK use DA?

It is hoped that by answering these questions, the theoretical and conceptual basis of DA will first be clarified. The use of DA by EPs in the UK will then be explored, with reference to factors related to any changes over time, and a consideration of some of the drivers and barriers to use of DA by EPs. Finally, literature detailing the outcomes that occur from the use of DA will be critically considered. It has been acknowledged that 'there is little evidence to show the impact of DA other than a handful of case studies' (Stacey, 2017, abstract). As described above, EPs must be accountable for their decisions, and an understanding of the outcomes from their working practices could be considered to be part of this. In addition, EPs appear to be invested in the child's experience of assessment (Atkinson et al., 2022), and the importance of exploring whether DA can offer valuable and useful information to teachers, parents and children has been previously highlighted (Lauchlan, 2001). Concentrating on the outcomes that may occur for key stakeholders when EPs use DA is therefore considered to be an important and interesting area of focus.

¹ The term 'outcome' can be defined as 'the result or effect of an action or event' (Oxford University Press, 2023). In this instance, the term 'outcome' will be interpreted widely, in recognition that some of the literature refers to 'impact' of DA. Although it is acknowledged that these terms may not mean exactly the same thing, with impact perhaps referring to broader and longer-term changes (Harding, 2014), they are used interchangeably throughout this review. This allows language to be kept consistent throughout this thesis portfolio.

By completing this literature review, it is hoped that the current research into DA will be synthesised and critically appraised to support application in EP practice. This review will also aim to recognise any gaps in the literature base, and subsequently identify areas for future research.

1.2. Methodology

1.2.1. Format of Literature Review

This literature review is semi-systematic, and is organised thematically in relation to the research questions. Much of the empirical research in the area of DA is mixed-methods or qualitative, and in addition there is a body of literature consisting of reflections, opinions and other reviews. Semi-systematic reviews are felt to be appropriate when studying a broader topic that has been conceptualised differently within diverse disciplines (Wong et al., 2013), and was therefore felt to be appropriate for the topic of DA. Semi-systemic reviews can map theoretical approaches, provide an understanding of complex areas and identify knowledge gaps within the literature (Snyder, 2019), and these align with the objectives for this review. The broad criteria for semi-systematic literature reviews outlined by Snyder (2019) were followed, with the planned approach combining transparency, rigour, accountability and reproducibility with elements of flexibility to address the broad research questions and variety of existing literature. Due to the importance of providing reasoning and transparency concerning choices made (Snyder, 2019), and in order to increase reproducibility, details of the process have been provided below. A deductive approach will be taken, with the review exploring previously established theory and its application in EP practice. Once relevant literature has been selected, data will be synthesised by summarising and discussing information felt to be relevant to the research questions.

1.2.2. Description of Search Strategy

Flexibility was applied to the search strategy, to ensure that as much relevant literature was captured as possible. However there was also a more systematic element to the search. Literature searches were carried out between August 2022 and April 2024. A number of databases, including the University of East Anglia (UEA) Library (hosted by EBSCO), Scopus, Science Direct, APA PsycInfo and Taylor and Francis Online were searched with terms:

"dynamic assessment"

AND "educational psychology" OR "educational psychologist" OR "educational psychologists"

These databases were selected to explore literature in the education and psychology fields. Further databases were not searched, as by this point the same references were occurring consistently, and it was therefore judged that all literature which met the inclusion criteria had been captured. The search terms were chosen as "dynamic assessment", as this was the focus of the literature review, with "educational psychology", "educational psychologist" or "educational psychologists" increasing the likelihood that research would be situated within the EP professional context. These search terms within these databases returned a number of studies that were then manageable to manually check for replication, inclusion and exclusion criteria. The Educational Psychology in Practice journal was also searched with the term "dynamic assessment", as this journal has a specific focus on educational psychology research and practice, primarily in UK contexts. In addition, the BPS Explore website was searched with the term "dynamic assessment", as this is a database containing a number of psychology publications that did not appear elsewhere. The literature searches carried out are listed in Appendix A. Papers were then checked for compatibility with the inclusion criteria below. Broader searches were also carried out using Google Scholar, and references were 'harvested' from the reference lists of already identified studies, to ensure that the review captured as much relevant literature as possible.

1.2.3. Inclusion and Exclusion Criteria

Throughout the literature searches, the following inclusion and exclusion criteria were used, and this could also be described as a more systematic element of the literature review process. However, there was again flexibility within this, and literature was critically considered to ensure relevance to the objectives of this review. Inclusion and exclusion criteria are summarised in Table 1.

 Table 1

 Summary of Inclusion and Exclusion Criteria

Inclusion Criteria	Exclusion Criteria	Rationale
Relevant to the use of DA	Not relevant to use of DA	Literature review is exploring
Relevant to EP practice	Not relevant to EP practice	the use of DA by EPs in the UK
Situated within a UK context	Situated within a non-UK context	
Published in a peer-reviewed	Any other literature which does	Literature must be rigorous and
journal or as part of a thesis for	not meet inclusion criteria	accountable
the Professional Doctorate in		
Educational Psychology		
Able to access full article/	Not able to access full article	Literature needs to be read so
thesis		that relevant information can
		be synthesised

The objectives of this review concern the use of DA in EP practice. It was therefore important that included literature was relevant to the practice of EPs, and as a result the majority of included literature involves EPs (or TEPs) and their use of DA in their work. It is acknowledged that there is a literature base detailing the use of DA in other disciplines, such as second language learning (for example, Ghahari & Nejadgholamali, 2019), however due to contextual differences in how DA is applied this will largely not be referenced. Likewise, the decision was taken to focus on literature relating to the use of DA by EPs in the UK. There is literature which focuses on use of DA by EPs/ School Psychologists in other countries (Cho & Josol, 2021; Tzuriel, 2000a), however the definitions and use of DA is felt to differ from the UK context. This is perhaps linked to how the EP role is practised differently across different countries (Boyle & Lauchlan, 2014), linked to professional guidelines, policy and legislation (For example, British Psychological Society, 2017; Department for Education & Department of Health and Social Care, 2015; Health and Care Professions Council, 2023). It is acknowledged that Wales, Scotland and Northern Ireland follow different legislation due to devolution, however professional guidelines for EPs apply across the UK and the EP roles are felt to be similar enough to include literature from these countries in this review. UK literature will therefore be the focus for this review, although some international literature will be referred to when it is felt

to provide context helpful to understanding the use of DA by EPs in the UK, particularly in relation to underlying theory and background.

There are no restrictions on the publication dates of included literature, due to a scarcity of relevant research in the area and earlier literature providing interesting historical context. However, it is acknowledged that the introduction of the Children and Families Act (2014) and Special Educational Needs and Disabilities Code of Practice (SEND CoP; Department for Education & Department of Health and Social Care, 2015) have impacted upon the role of the EP in the England, along with similar legislation in the devolved nations. Therefore it is understood that literature published after this time may have greater relevance to the current professional context. The chronological context of literature will be considered as part of critical appraisal within this literature review. It was also important that the researcher could access the full article or thesis in order to review the contents. Where literature was not accessible through the UEA library or inter-library loan system it could not be included.

The literature included in this review contains empirical studies of quantitative, qualitative, mixed-methods and case study methodology, along with reviews and opinion pieces that have been published in peer-reviewed journals. This is to ensure that included literature is appropriately rigorous and accountable. In addition, 'grey literature' including empirical studies and literature reviews within EP and TEP Doctoral theses will also be referenced. Whilst these have not necessarily been published in peer-reviewed journals, they have been examined prior to publication in University repositories, and it is felt that they have a relevant and valuable contribution when considering professional issues relating to the role of the EP.

1.2.4. Analysis and Synthesis Process

Literature identified as meeting the inclusion criteria was read by the researcher. From this, notes were made on content relevant to answering the research questions, including concepts, theories, methods and findings within the existing literature (Wong et al., 2013). This content was then organised into topics and broad themes within each research question, so that reporting of content would follow a coherent narrative and address the objectives of the review. As part of the narrative, a critical appraisal of the literature is included, and this was considered

throughout the process. The analysis and synthesis process is an aspect of the literature review which had more flexibility, although the six guiding principles described by Wong et al. (2013) were considered throughout reporting of findings. These principles are: pragmatism, considering what will be most useful to the intended audience; pluralism, considering multiple angles and perspectives; historicity, describing how understanding has been shaped over time; contestation, examining different research traditions; reflexivity, continual reflection on research findings; and peer review, feedback from others.

1.3. Findings

1.3.1. How is DA Defined?

To answer this question, the origins and theoretical background of DA will first be explored, before considering definitions of DA. Different tasks, checklists and applications of DA as used by EPs will then be discussed.

It is acknowledged that assessment may be conceptualised in different ways, and therefore the broad understanding of assessment as used by EPs will be clarified. It has been suggested that EPs view assessment as supporting the profiling of strengths and difficulties, and planning for intervention (Atkinson et al., 2022). This may link to EP assessment being positioned within professional practice frameworks and in the context of hypothesis testing and formulation (Annan et al., 2013; Frederickson & Cameron, 1999; Monsen & Frederickson, 2016). EP assessment can include a wide range of methods including: standardised, curriculum-based, criterion-referenced and dynamic assessment approaches; observation; exploration of teacher, parent and pupil views; and social, emotional and mental health inventories (Atkinson et al., 2022). In addition, EP assessment may explore a wide range of domains, including: ability; behaviour; educational, social and developmental skills; mental health; and mental capacity (Atkinson et al., 2022).

Origins and Theoretical Background

DA has its origins in sociocultural theory, connecting children's intellectual functions with the actions of others, as well as culture as a whole (Hill, 2015). This includes the concept of a Zone of Proximal Development (ZPD), proposed by Vygotsky and defined as 'the distance between the actual development level as

determined by individual problem-solving, and the level of potential development as determined through problem-solving under adult guidance or in collaboration with more capable peers' (Vygotsky, 1978, pp. 85–61). Vygotsky emphasised the importance of context and collaborative interaction in intellectual development, and used the ZPD to explore the nature of the learner's emerging mental functions and establish next steps for instruction (Deutsch, 2017).

DA more specifically was developed by Feuerstein, who proposed the theory of Structural Cognitive Modifiability (SCM). This suggests that human development should be examined from a joint biological and socio-cultural perspective, proposing that intelligence is not fixed but involves adaptation. Therefore, low functioning as measured by psychometric tests can be explained by cultural difference, where individuals are assessed using norms different to their own culture, and cultural deprivation, arising from social, economic or biological factors (Feuerstein, 2003; Feuerstein et al., 1979; Yeomans, 2008). SCM refers to the process skills, or cognitive functions of a learner. These can be organised into three phases: input, where information is gathered; elaboration, where the information is used in problem solving and output, where the learner shows what has been learned (Yeomans, 2008). Affective aspects of learning were also defined by Feuerstein. These include behaviours such as persistence, frustration-tolerance, attention control and control of impulsivity (Yeomans, 2008). One of the purposes of DA is to identify strengths and weaknesses in the cognitive functions and affective aspects of learning (Yeomans, 2008).

Feuerstein also developed the concept of Mediated Learning Experience (MLE). This is the means by which cognitive flexibility is developed, and a mediator 'stands between' the stimulus and the learner in order to help the learner make sense of the stimulus (Feuerstein, 2003; Feuerstein et al., 1979; Yeomans, 2008). Therefore, the learner is able to complete tasks within their ZPD. Feuerstein suggested that the following criteria are essential and universal to MLE:

- Intentionality and reciprocity mediation is a deliberate, intentional act, is reciprocal, and can be changed and adjusted according to the response of the recipient;
- Meaning the purpose of the mediation is shared with the learner;

 Transcendence – the learner can use the targeted cognitive functions in other contexts, so current learning is related to both past and future learning.

In addition, feelings of competence must be mediated, and the learner's success must be recognised with praise (Yeomans, 2008).

DA differs from standardised, static assessments of cognitive ability, such as psychometric assessments. EPs frequently use standardised assessments to assess the ability and/or attainment of learners (Atkinson et al., 2022). Such assessments have standardised testing procedures, where an examiner presents items to an examinee without any attempt to change, guide, or improve performance (Rahbardar et al., 2014). Scores on these tests can then be easily compared to others in a similar demographic (Poehner, 2008), and the learning process appears through its distant, objectified results, i.e. the learner's score on a test (Deutsch, 2017; Haywood & Lidz, 2007). Such approaches have been criticised by DA theorists such as Feuerstein for viewing intelligence or cognitive functioning as a fixed characteristic (Feuerstein et al., 1979). The terms of standardised and static assessment are often used interchangeably in the literature, as they have been throughout this review.

Definitions of DA

There is a distinction between the terms dynamic *testing* and dynamic *assessment*. Dynamic *testing* is primarily based on the work of Vygotsky (1978) and the concept of ZPD (Green & Birch, 2019). The focus of dynamic testing is primarily within the test itself, it tends to be more standardised and systematically varies task or situational characteristics to evoke intraindividual variability in test performance (Elliott et al., 2018). Help is often offered in a 'sandwich' format (Sternberg & Grigorenko, 2002), where a pretest is completed unassisted, followed by instruction tailored to the individual's strengths and difficulties, with a subsequent post-test (Elliott, 2003). This tends to result in more quantitative data of difference in performance between different conditions (Stringer, 2018). Dynamic testing is mainly used by academic psychologists and researchers (Elliott et al., 2018), therefore it will not be explored in great depth in this review as it is judged to have less practical relevance to the EP professional context.

Dynamic *assessment* more commonly refers to approaches based on the work of Feuerstein and theories of SCM and MLE (Green & Birch, 2019), and the

primary focus is the intervention which follows the test (Elliott et al., 2018). This therefore involves a wide range of cognitive, affective and conative elements, and has a greater appeal to educationalists and clinicians (Elliott et al., 2018). DA involves non-standardised use of MLE, aiming to provide qualitative data on the learner's performance, cognitive structures and potential to learn (Feuerstein et al., 2002; Green & Birch, 2019). Help tends to be offered in a 'cake' format (Sternberg & Grigorenko, 2002), where assistance is provided immediately when difficulties are encountered, although this help can vary between more standardised or individualised (Elliott, 2003). This more educational and clinical approach is the most practised in the UK (Green, 2015), appears to have greater relevance to EP practice, and therefore is the broad approach referred to when discussing DA throughout this review.

There are a number of definitions of DA throughout the literature, and several of these are displayed in the Table B1 in Appendix B. From synthesis of the various definitions common themes have been developed, and are listed in Table 2. These are:

- DA involving mediation or scaffolding from the assessor, designed to support the child's performance on the assessment task and explore their potential for learning.
- DA giving information on cognitive processes impacting a child's learning, for example memory or planning.
- DA leading to suggestion for future intervention in the classroom, including the type and intensity of intervention required.
- DA giving information on affective factors impacting a child's learning, for example their confidence or responsiveness to support.

 Table 2

 Defining Features of DA From an Analysis of Existing Definitions

Theme	Included in Definitions	Frequency
DA involves mediation	Lidz (1991); Waters and Stringer (1997); Deutsch and	11
or scaffolding	Reynolds (2000); Elliott (2000); Haywood and Tzuriel (2002);	
	Elliott (2003); Lussier and Swanson (2005); Yeomans (2008);	
	Lawrence and Cahill (2014); Lidz (2014); Stacey (2017)	
DA gives information on	Lidz (1991); Waters and Stringer (1997); Tzuriel (2000);	7
cognitive processes	Lauchlan and Elliott (2001); Yeomans (2008); Lawrence and	
	Cahill (2014); Stacey (2017)	
DA links to future	Lidz (1991); Lidz (2014); Stacey (2017)	3
interventions		
DA gives information on	Lauchlan and Elliott (2001); Stacey (2017)	2
affective factors		
	Total number of definitions	13

Interestingly, the most recent definition from Stacey (2017), mentioned all four of the common elements. It could therefore be described as the most complete, as it embodies the four principles that are frequently reflected in other definitions. This definition is:

'Dynamic assessment describes approaches to assessment which focus on illuminating the cognitive processes and affective factors impacting on a child's performance through the child and assessor working together on a task. Integral to the assessment is the active role of the assessor in trying to create the optimum conditions for the child to learn both content needed for the task and more general processes that can be applied to both the task and beyond. Working in this way allows the assessor to gauge the child's responsiveness to support and to use these observations to subsequently inform tailored intervention in the classroom which will help the child learn more effectively.' Stacey (2017, p. 21)

It is understood that this author is an EP, and so this definition could capture more current and holistic thinking amongst EPs around the purpose of DA. It may be that the aspects of DA more frequently mentioned in definitions (giving information on cognitive processes and involving mediation) are accepted to be important aspects of DA beyond the EP professional context, whereas the less frequent elements (leading to intervention and giving information on affective factors) could be

more specific to EPs. The different definitions also noticeably vary in language used, in terms of jargon and how accessible they may be to parents, school staff and other professionals. It could be argued that it is most helpful to have definitions of DA that allow it to be easily understood by all stakeholders.

Stringer (2018) reflects on the number of definitions provided for DA, and wonders about the utility of reaching a consensus over different approaches. Instead, it is suggested that we should embrace the consensus that exists, and then provide clarity over how the general term DA is used. However, elsewhere it has been suggested that a lack of consensus over definitions of DA and a standardised procedure could lead to confusion amongst practitioners, leading to DA feeling unsafe as it opens practitioners up to scrutiny (Callicott et al., 2019; Haywood & Lidz, 2007). DA can be described as complex, and it could therefore be argued that having a working definition and shared understanding of DA for EPs to discuss and reflect on is helpful. In addition, a consensus may be helpful for research evaluation of DA. The need for a more consistent definition is highlighted by Green and Birch (2019), who acknowledge that the use of DA appears to be a complex and often poorly defined area of practice for EPs in the UK. These authors completed a Delphi study, using panels of experts in DA and EPs to propose a framework of competency for DA practice, with the suggestion that this could be used as a self-assessment tool or in training. This could increase shared understanding amongst EPs, and it will be interesting to see how this framework may be applied in the future.

DA Tasks

Within DA, a number of assessment procedures and tasks have been developed which vary in emphasis, purpose and type of data gathered (Green & Birch, 2019). Domain-specific tasks may look at curriculum areas such as reading or maths (Hill, 2015), whereas domain-general tasks may be unfamiliar to the child, including tasks developed by Tzuriel (as discussed in Tzuriel, 2001), and explore skills such as inferential thinking. The choice between these may depend on the extent to which it is believed that mental activities, such as cognitive skills appear consistently across multiple contexts (domain-general), or whether they are more specific to different areas (domain-specific; Kaniel, 2010; Sternberg, 2005). Opinions in the field differ on whether domain-general or domain-specific approaches should be used (Hill, 2015). Interestingly, the definition of DA judged to be the most

comprehensive refers to supporting the child to learn specific content needed for the task, but also general processes that could be applied to the task and more widely (Stacey, 2017). In addition, Lauchlan and Daly (2023) suggest that any task which will allow exploration of the child's learning and the way they respond to mediated learning can be used, giving examples of both domain-specific and domain-general tasks. It is argued that domain-general tasks may support the child's optimal performance and engagement due to the task being novel, and that the cognitive and affective learning principles identified are likely to generalise to classroom tasks. A study by Woods and Farrell (2006) suggested that EPs used both curriculumbased DA and other tests of DA, with curriculumbased being more commonly used. However, EPs in Stacey's (2017) study suggest that curriculumbased approaches may have reduced over time, with the majority of approaches referred to being domain-general tasks. It would be interesting to explore why this is the case, and why and when EPs may choose to use certain tasks within DA.

Assessment tools commonly referred to in the literature for use in DA are listed below. Further information on a number of tasks can be found in Tzuriel (2001), but it is noted that availability of several of these materials are limited to practitioners who have attended Tzuriel's training and workshops (Lauchlan & Daly, 2023). Comprehensive recent data on how often and when different tasks and checklists are used by EPs could not be found, and this might be an area for future research. However, a recent study did explore the DA tasks used by TEPs (Murphy, 2023), with the most frequently used being the Complex Figure Drawing (29%), games (28%) and 16 word memory test (21%).

Tasks:

- The Learning Propensity Assessment Device (LPAD; Feuerstein et al., 2002).
 This contains several tasks, but commonly mentioned in the literature in relation to EP practice are:
 - Complex Figure Drawing;
 - Organisation of Dots;
 - 16 Word Memory Test;
 - Raven's Matrices (Raven, 2003);
 - Verbal Abstraction;

- o Representational Stencil Design;
- Numerical Progressions;
- o Organiser.
- Children's Analogical Thinking Modifiability test (CATM; Tzuriel & Klein, 1985).
- Cognitive Modifiability Battery (CMB; Tzuriel, 1995).
- Children's Conceptual and Perceptual Analogical Modifiability test (CCPAM;
 Tzuriel, 2002).
- Children's Inferential Thinking Modifiability Test (CITM; Tzuriel, 1992).
- Children's Seriational Thinking Modifiability Test (CSTM; Tzuriel, 1995a).
- Seria-Think Instrument (Tzuriel, 2000b).
- Games in Murphy (2023), games most frequently listed as being used in DA by TEPs included Rush Hour, Puzzles/ Tangrams, and card games.

Checklists:

- Cognitive Abilities Profile (CAP; Deutsch & Mohammed, 2008).
- Checklist of Cognitive and Affective Learning Principles (Lauchlan, 2012;
 Lauchlan & Carrigan, 2013).

Callicott et al. (2019) suggest that video may support EPs in their use of DA, by videoing themselves and reflecting on this in supervision. This may reduce the perceived barrier of a lack of ongoing supervision and support reported by previous studies (Deutsch & Reynolds, 2000). The authors make several arguments around the merits of combining DA with video, including evaluating the context of the assessment, allowing the EP to reflect on the impact of their intervention, and supporting reliability, validity and consistency in the DA process. Drawbacks of using video in this way are also mentioned, including difficulties with the logistics of EPs filming their practice, finding watching videos of themselves challenging (Jarvis & Lyon, 2015), and the potential for feelings of inadequacy leading to self-defence mechanisms if supervision is not effectively managed (Eraut, 2000). However, the potential of using video to support DA practice amongst EPs appears to be promising, and would be a valuable area for further research.

In addition, some literature refers to DA theory and approaches being used alongside other aspects of EP practice. For example, to explore inclusion of autistic children in mainstream schools and to set objectives for intervention (Flynn, 2005),

within solution-focused consultation with teachers (Hymer et al., 2002) and within a collaborative approach aiming to support teachers to develop their teaching knowledge and practices (Norwich et al., 2018). Although these applications of DA will not be explored further in this review, it is interesting to consider how DA theory and approaches could be used more widely in EP practice.

1.3.2. How and Why has the Use of DA by EPs in the UK Changed Over Time?

This section will begin by considering six key studies which explore the frequency of DA use amongst EPs in the UK, including reported reasons for use and perceived barriers to the approach. Following this, factors that might influence EPs to use DA, and the potential barriers to EPs using DA will be discussed, and this has been structured according to themes developed from the wider literature.

Frequency of Use

Deutsch and Reynolds (2000), completed a relatively early study looking at the use of DA by EPs in the UK. They distributed a questionnaire to EPs who had previously expressed an interest in DA, which was completed by 88 participants. Of these participants, 59% stated that they had used DA, with 53% using DA at the time of response. As this was a sample who had previously expressed an interest in DA, the authors conclude that this indicated a low overall level of DA use by EPs in the UK. Reasons given for low use of DA included insufficient training in the approach, a lack of time due to other assessment priorities, Local Authority (LA) pressure to complete static measures, difficulty accessing resources and materials and a lack of ongoing support perceived to be essential to use of DA. However, responses also suggested widespread positive attitudes to the use of DA, including increased flexibility, enhancing self-esteem of the child, providing practical advice for teachers, being less culturally biased and richer in information than psychometric tests. These findings are interesting, and suggest that at this time, awareness of DA and its potential merits were developing, but perceived barriers were restricting its widespread use, and these are further explored below. It appears that although the sample size is limited, this would have been a helpful initial study into understanding the issues surrounding DA at the time, and may have triggered subsequent research into the area. In addition, this study is useful now in understanding the context and

attitudes of those around 20 years ago, although due to contextual changes it is perhaps limited in its implications for the EP profession today.

Kennedy (2006) explores assessment and intervention frameworks being used by EPs in Scotland between 1997 and 2002. Although the reported use of DA increases between these time points, this increase is not as significant as reported aspirations from 1997. There was little change in the use of norm-referenced assessment, and the authors wonder if this could explain why the use of DA had not become more well-established. Interestingly, there appeared to be a shift in theoretical bases of EPs from cognitive, developmental and social learning theory to a stronger social interactionist and eco-systemic base. This would appear to fit well with the theoretical underpinnings of DA, and it is reported that in 2002 there remained a strong desire to use more dynamic methods of assessment. The authors share that reported barriers to use of DA included it being time-consuming, the reporting being long-winded and limitations due to questions around 'reliability'. These conclusions show some consistency with those from Deutsch and Reynolds (2000), building a richer picture of attitudes towards DA from EPs in the UK around the turn of the millennium.

Woods and Farrell (2006) published a study six years after Deutsch and Reynolds (2000). It is worth noting that within that time, the SEND CoP 2001, Every Child Matters (Department for Children Schools and Families, 2003) and the Children Act (2004) had been published, which is likely to have impacted upon the role of the EP within England (Fallon et al., 2010). Woods and Farrell (2006) completed a questionnaire survey of 142 EPs from LAs across England and Wales about assessment processes. Findings indicate that approaches based on DA were not used frequently, with only 31% of EPs reporting to use curriculum-based DA and 11% reporting using tests of DA in at least 25% of their casework. This is lower than reported in the previous study by Deutsch and Reynolds (2000), but it is important to consider that the previous study used a sample of EPs who had already expressed an interest in DA, so reported frequency of use would be expected to be higher. However, Woods and Farrell (2006) go on to state that DA approaches were reported to be useful to the purpose of assessment when used. This study does not consider drivers or barriers to the use of DA in any more detail, as the study looks at assessment practices more broadly. However, it suggests that the use of DA by EPs

had remained low, so it could be tentatively inferred that some of the barriers identified by Deutsch and Reynolds (2000) remained. Similarly, Cameron and Monsen (2005) share that in a sample of psychological advice from one LA, there appeared to be a reliance from EPs on psychometric approaches, and an infrequent exploration of alternative assessment methods, such as DA. This suggests that frequency of DA use in psychological advice was consistent with EP self-report data at this time.

Stacey (2017) explored how much EPs use DA as part of a wider thesis study, where 13 EPs from two LAs were interviewed about their use of DA. It was concluded that EPs' use of DA is limited, supporting findings from previous studies. However, there were exceptions to this. Although most EPs interviewed used DA in less than half of their individual casework, a small number of EPs used DA in the majority of their interactions. These were the most frequent users of individual casework in their practice, and it is therefore suggested that opportunities and time to practice DA might support professional confidence and expertise. EPs also reported that the amount of individual assessment and use of DA changing over time had been influenced by sociocultural factors such as service delivery models, changing roles and professional identity. In addition, EPs felt that the involvement of peers and receiving training could support the use of DA. On the other hand, constraints were perceived as time, materials, a lack of skills, knowledge, confidence and statistical rigour. It can be cautiously suggested that these factors are attributable to some of the changes in frequency of DA use by EPs over time. However, it is interesting to consider that the findings regarding the perceived facilitators and barriers to EPs using DA are similar to those reported by Deutsch and Reynolds (2000), over 15 years previously. This might suggest that these issues have not been adequately addressed in this time. These qualitative findings provided by Stacey (2017) offer more depth than previous studies, however broader conclusions about DA use across the profession are limited. In addition, the author acknowledges that the questions were not ideally designed to explore the extent of use of DA amongst participants, as this was part of a wider study.

Atkinson et al. (2022) has more recently carried out a survey looking at assessment practices of EPs and other educational professionals. The number of EPs completing the survey was 103. Findings suggest that use of DA amongst EPs

may have increased in popularity since earlier studies, with approximately 67% of EPs reporting use of DA, and this being significantly higher than other education professionals. The authors speculate that this could be due to DA methods being more clearly documented. This increasing use of DA could also be linked to other findings from this study suggesting that EPs offer a broader, more holistic perspective on assessment compared to other professionals, are invested in the child's experience of assessment, and prefer methods which provide relevant information to inform a feedback discussion. These are factors which may fit well with the remit of DA, with its focus on cognitive and affective factors influencing learning. This study by Atkinson et al. (2022) had more of a focus on standardised assessment, therefore findings related directly to the use of DA are more limited. It would be interesting to explore the responses to similar questions focusing on DA, particularly as a survey methodology has the potential to reach a wide sample of EPs. It is also acknowledged that this survey was completed prior to the Covid-19 pandemic, when lockdowns impacted the practice of EPs (Association of Educational Psychologists, 2020; Hassard, 2022). It would therefore be interesting to explore whether this has impacted the use of DA amongst EPs.

A description and exploration of DA practice amongst TEPs in the UK was carried out by Murphy (2023). Mixed-methods approaches were used, including an online survey of 175 TEPs representing all UK training courses, at different stages in their training. Of the survey respondents, 75% of TEPs reported using DA in their practice whilst on placement. The author reflects on the increase compared with Deutsch and Reynolds (2000), and wonders whether DA practice could be lower amongst EPs due to contextual factors such as supervision received and ongoing training, or whether there has been a more general increase in DA use since the early 2000s, perhaps due to more Universities offering DA training as part of the Doctorate course. The qualitative element of this study references a motivation from TEPs to use DA, and highlights peer and supervisor support, shadowing opportunities, Educational Psychology Services (EPSs) and Universities as factors and systems that influence the use of DA. It certainly seems plausible that a combination of these factors could account for the higher reported use. It is acknowledged that this sample may show a selection bias, with those interested in DA more likely to complete the questionnaire, and this is important to keep in mind

when considering results. In addition, TEPs may have been encouraged to try out a range of assessment methods and it would be interesting to explore whether DA remains a part of their practice once they are qualified. However, the response rate from the questionnaire was relatively strong considering the low numbers of TEPs at any one time in the UK (as of 2024 an intake of 204 per year; Association of Educational Psychologists, 2024), and so it is interesting to reflect on the potential implications of these findings for the profession in the future.

These studies looking at the frequency of DA use amongst EPs tentatively suggest that usage has increased over the past 25 years, with a number of reasons being suggested as contributing to this. Some of the reasons why EPs are motivated to use DA do appear to have remained consistent. However, some of the barriers to EPs using DA also seem have persisted, and may still be present for EPs. This may contribute to explaining why the use of DA has not increased further. The following sections will explore some of these motivators and barriers to EPs using DA in more detail.

What Factors Might Influence EPs to use DA?

Within the literature, there are a number of factors discussed that may influence EPs to use DA. The following factors will now be considered:

- · Perceptions of standardised assessment as reductionist;
- Questions around validity of standardised assessments for certain populations;
- DA supporting EP values of social justice;
- DA aligning with EP views on the purpose of assessment;
- DA being a positive experience for the child;
- Rich and practical nature of information gained during DA;
- Theoretical perspective of EPs being consistent with DA;
- DA being appropriate for use in the Early Years.

Perceptions of Standardised Assessment as Reductionist. Critique around more traditional standardised, static assessment practices may contribute to EPs choosing to use DA as an alternative. Throughout the last 20 years or so, there appears to have been increasing discourse around use of standardised cognitive assessments within EP practice (for example Sewell & Ducksbury, 2013; Zaniolo,

2019), and so it is possible this has contributed to change in DA use over time. One area of criticism is that standardised assessments are reductionist and do not adequately consider environmental factors, therefore have limited applicability to the classroom. Elliot (2003) summarises several of these arguments. These include a tendency for standardised assessment to lack an empirically supported theoretical framework (Flanagan & McGrew, 1997), a limited relationship between scores and instructional practices (Reschly, 1997), an emphasis on products rather than psychological processes (Wagner & Sternberg, 1984), and an inability to guide practitioners in deriving specific interventions for educational difficulties (Fuchs et al., 1987; McGrew, 1994).

Storeygard et al. (2010) also critically consider static assessment methods. They describe how such methods do not identify information about learning processes, cognitive functions that are responsible for difficulties, or mediational strategies that could support learning. They also refer to static assessment as assessing skills and the deficit of them, rather than the landscape of learning, with an underlying medical model of teaching and learning. The EP role, with its consideration of the impact of environmental and systemic factors on children and young people would perhaps be more closely aligned with a social model (Zaniolo, 2021), and theoretical perspectives are discussed in more detail below. Similarly, TEPs have shared negative perceptions of standardised and psychometric assessment, linked to not providing a holistic view of the child and uncertainty about how these assessments might translate into classroom practice (Murphy, 2023).

Questions Around Validity of Standardised Assessments for Certain Populations. The validity of using standardised psychometric assessments with certain populations may be limited, and concerns in this area may lead EPs to seek alternatives. The use of such assessments with populations such as children with visual impairments has been questioned, with DA approaches as part of a wider triangulation process being suggested as a more helpful alternative (Minks et al., 2020). Similarly, standardised assessment processes have been suggested to be unable to accommodate the different needs of children with learning difficulties (Groth-Marnat, 2009). Such learning needs may impact on a learner's engagement and ability to undertake lengthy test batteries, with factors such as distractibility, test anxiety, sleep and frustration tolerance suggested to influence the validity of

psychometric test scores (Minks et al., 2020). In addition, tests may be not have been standardised on populations representative to such groups.

It has also been suggested that standardised tests can underestimate the abilities of children from minoritised groups or less advantaged socioeconomic contexts, as the skills being tested may not have been acquired in the home (Elliott et al., 2010). Standardised, and particularly psychometric, assessments may therefore have a tendency to linguistic and cultural bias (Lopez, 1997 in Elliott, 2003; Reynolds, 2021). The term 'learning disadvantage' has been used to express that the causes of low performance can include environmental factors (Sternberg & Grigorenko, 2002). Likewise, Sternberg (2018) considers how conventional standardised testing may be most appropriate for individuals who have grown up in environments which value abstract analytical skills, or are accustomed to taking standardised tests, and less appropriate for those whose environments have led to other skills being adaptive. This is interestingly linked to conceptualisations of 'intelligence', the scope of which is beyond this review. However it is suggested that an advantage of DA is that is allows individuals to become familiar with the assessment material, perhaps reducing an advantage for individuals of a dominant culture. There may also be the possibility for culturally familiar materials to be used within assessment. Poehner (2011) also suggests that through mediation, DA aims to increase educational fairness.

DA Supporting EP Values of Social Justice. The potential for psychometric tests to be biased towards certain groups might oppose EPs positioning of themselves as promoters of social justice (Zaniolo, 2021). Therefore if EPs feel that their values are more aligned to the values of DA, this could be another reason why they might choose to use them. In the study by Deutsch and Reynolds (2000), it was reported that some EPs perceived DA as being non-discriminatory, and less culturally-biased than standardised alternatives. TEPs in Murphy's (2023) study shared the view that DA was more ethical that standardised assessment, for example due to cultural or language reasons, and these areas were included in a theme relating to TEPs having motivation to use DA in their practice.

Kuria and Kelly (2023) explore social justice principles within an EP service. Participants in focus group discussions reflected on the history of standardised

assessments as part of EP practice, and how they may have contributed to social injustice. It was reported that the service was seeking to diversify assessment approaches to include greater use of DA, although it was acknowledged that this is not always free of cultural bias. It therefore seems that the implications of assessment choice in relation to social justice are being considered by EPs. DA has been described as having the potential to be an empowering, person-centred form of assessment to support inclusive practice (Stringer, 2009), and it might be that DA fits with the values of many EPs.

DA Aligning with EP Views on the Purpose of Assessment. EPs may choose to use DA when it aligns with their views on the purpose of assessment. A recent survey study suggested that standardised tests for ability and attainment remain a significant part of EP practice (Atkinson et al., 2022). It may therefore be that dynamic and standardised approaches are being used in combination, and for different reasons, with literature suggesting that DA may be particularly useful in certain situations (Birnbaum, 2004; Haywood & Lidz, 2007; Stacey, 2017), and that different methods of assessment can serve different purposes and answer different questions (Cizek, 1997; Lauchlan & Carrigan, 2013). Considering the purpose of EP assessment may also be an important factor in choice of assessment (Burden, 1996; Lauchlan, 2001), with perceptions of EPs about this potentially impacting their practice decisions. This perhaps links to the argument from Stacey (2017) that emphasis should be changed from critique of psychometrics in the field of DA research, as although this is important in the EP profession it does not alone create an imperative to use DA. They argue that increasing understanding of DA can be justified in its own right, and it could be that the tendency to compare the two as opposites is not always helpful or productive.

DA Being a Positive Experience for the Child. EPs may choose to use DA due to perceptions about the experience of the child during the process, and this may link to the suggestion that the assessment experience of the child is an important consideration for EPs (Atkinson et al., 2022). DA has been suggested to be a more positive experience for the child compared to other assessment methods, due to the recognition of success (Yeomans, 2008), and studies have suggested that DA can have positive outcomes for the child (e.g. Lawrence & Cahill, 2014), explored in more detail in a later section of this review. In a recent EP workforce report, it is

reported that in a case study one child said they had enjoyed a play-based DA, describing it as 'really fun' (Atfield et al., 2023), although a lack of detail provided here limits conclusions. Similarly, Lauchlan and Carrigan (2013) refer to research by Meijer (1993), which suggests that the child is more comfortable during an assessment if the assessor is engaged in a collaborative process with them.

Previous research findings have suggested that EPs perceive DA to be more positive for the child than alternative approaches, including enhancing their selfesteem, looking for strengths rather than weaknesses, looking for maximal rather than average performance, and flexibility meaning that the process can be adapted according to the needs of the child (Deutsch & Reynolds, 2000). Some EPs in Stacey's (2017) study suggested that they chose to use DA as a more ethical alternative to psychometrics because of their beliefs about how they wish to work with children and young people, and the experience of themselves and the child. Similar perceptions have been shared by TEPs, who reported feeling that DA was centred around the child, including being a positive experience for the assessor and the child, children seeming happy and comfortable during the assessment, and the assessor able to be responsive to the child's needs (Murphy, 2023). This was reported in contrast to negative feelings towards standardised assessment linked to difficulty building a relationship with the child and the requirement for a child to fail. Elsewhere, a TEP has reflected on how they enjoy the level of interaction with the child during DA, and there is a sense of 'doing with' rather than 'doing to' the child (Hattersley, 2020). These feelings towards different assessment processes may therefore influence EPs to use DA.

Rich and Practical Nature of Information Gained During DA. EPs may use DA because of the rich and practical information gained as a result of the assessment. Lauchlan (2001) explains how DA is based on the belief that working with the child can allow a practitioner to learn more about a child's cognitive development, compared with assessing unassisted performance. DA may also offer the opportunity for the practitioner to more explicitly explore affective factors impacting learning, leading to an increased understanding of how these may be impacting the child's learning (Lauchlan, 2001; Tzuriel et al., 1988). Stringer et al. (1997) suggests that DA can support EPs to answer the question 'why?', in a way that is rarely possible through psychometrics, and by considering the factors

important in a child's learning, strategies to support the child can subsequently be developed (Lauchlan & Carrigan, 2013). This could link to EPs hoping to complete a holistic and child-centred assessment (Atkinson et al., 2022; Woods & Farrell, 2006), and EPs report that they view assessment as enabling profiling strengths and difficulties and planning for intervention (Atkinson et al., 2022). Similarly, Deutsch and Reynolds (2000) report that EPs perceived strengths of DA to include providing rich information and leading to practical advice for teachers. In addition, Stacey (2017) reports that EPs felt DA resulted in rich information about children's learning and what could support their progress, and that this was a reason why they may choose DA over other assessment methods.

Theoretical Perspective of EPs Being Consistent with DA. DA emphasises social aspects of learning, and the underpinning theory suggests that social issues cannot be separated from cognitive ones (Hill, 2015). This may align well with the perspectives of EPs, and therefore may contribute to EPs choosing to use DA in their practice. Hill (2015), goes on to suggest that this theoretical perspective may fit with more recent educational trends. The tendency for EP practice in the UK to adhere to relativist, interpretivist and constructivist approaches has also been discussed by Gulliford (2015), and Kennedy (2006) reports that between 1997 and 2002 there appeared to be a shift in theoretical bases of EPs in Scotland, from cognitive, developmental and social learning theory to a stronger social interactionist and eco-systemic base. Kelly (2016) also explains how social constructionism and ecological theory has more recently been reflected in legislative and ethical frameworks in the UK, suggesting an increased awareness of the complex interactions between social and developmental processes in education. Although many EPs may have adopted a constructionist position prior to this (Kelly, 2016), the wider acceptance and understanding within the educational field could partly explain the increased uptake of DA, and this could be an interesting factor to explore further. This links to further discussion around epistemology and the nature of research into DA, considered in the discussion section of this chapter.

DA Being Appropriate for use in the Early Years. DA may be appropriate when EPs work with children in the Early Years. Earlier literature from Shannon and Posada (2007) suggested that despite DA seeming more appropriate than psychometric assessment for children in the Early Years, it was not a method that

was widely used amongst EPs as reported through a questionnaire. However, more recently Hussain and Woods (2019) illustrated the use of DA with children in the early years with two case studies. In the introduction to the study, they explain the rationale for the use of a DA approach working with this population. DA can be delivered in the context of play, which makes it appropriate as it can assess functional behaviour when young children are unable to perform in a formal testing situation (Haywood & Tzuriel, 1992). The authors also identify elements of DA within the Early Years Foundation Stage curriculum, for example the requirement for practitioners to observe the things that children can do, and respond to these to help children progress (Tickell, 2011). Findings from these case studies suggest that DA can be helpful to EPs in understanding the needs of children in the Early Years. These all appear to be logical reasons for the use of DA with this population, and it will be interesting to see how the evidence base in this area is subsequently developed.

What are the Potential Barriers to EPs Using DA?

Throughout the literature, a number of barriers to EP use of DA have been suggested. Stacey (2017) explores a number of these in detail, although they note that at the time, only Deutsch and Reynolds (2000) had based their conclusions on reports from EPs. Since then, research from Stacey (2017) and Murphy (2023), who explored perceptions of TEPs can be considered, and there remain a number of arguments within opinion pieces. The following barriers to EPs using DA will now be discussed:

- Attitudes towards assessment types within EP services;
- Dominant approaches within education not aligning with DA;
- Time restrictions:
- Concerns around DA rigour, reliability and validity;
- Reduced EP confidence and training.

Attitudes Towards Assessment Types Within EP Services. Attitudes and expectations towards different assessment types within the systems EPs work in may impact their decisions, including whether or not they choose to use DA. Deutsch and Reynolds (2000) refer to attitudes within the LA leading to pressure to carry out standardised assessments, particularly for statutory assessments, and this is related

to the role of EPs being linked to resources. Similarly, a paper on the use of DA theory in consultation by Hymer et al. (2002) explains that in one LA, there was an expectation that standardised and norm-referenced assessment methods would be used by EPs in individual casework due to criteria for allocation of resources. To some extent this may still be relevant. Stacey (2017) reports that EPs referred to expectations of the EP role and beliefs and understanding of staff in schools, along with LA culture and processes, acting as constraints to their use of DA. In addition, Murphy (2023) reports that some TEPs shared that the attitudes and expectations of the LA towards assessment significantly impacted their learning and practice of DA. A preference for standardised assessment may also be held by school staff, with EPs sharing in a recent workforce report that they felt standardised assessments were often requested because they were viewed as 'hard' quantified evidence for an Education, Health and Care Plan (EHCP; Atfield et al., 2023). This could continue to be contributing to an expectation or pressure on EPs to use standardised assessments rather than DA in their practice.

Dominant Approaches Within Education Not Aligning With DA. Dominant approaches within education may not align with DA, and this may make it more challenging for EPs to use it. Elliott (1993), discussed in Stringer et al. (1997) consider how the process of DA may not fit well with traditional approaches of psychology as a science, which perhaps take a more empiricist stance. Barriers are also suggested to include dominant approaches within the school system of potential as 'fixed', and a role for EPs to use assessment for resource allocation, classifying children into levels of need to ensure this is equitable. It is suggested there is an inherent incompatibility between the use of DA and these constructions. As discussed above, the dominant approaches within EP practice may also align with that of DA. Although it is hoped that many of these beliefs are now outdated, systemic factors do still appear to be a barrier to the use of DA amongst some EPs described above, and are perhaps reasons why the use of DA by EPs has not changed as much as may have been expected.

Time Restrictions. In addition, time has been described as a barrier to EP use of DA (Deutsch & Reynolds, 2000; Elliott, 1993; Kennedy, 2006; Stacey, 2017; Stringer et al., 1997), including the time taken to complete DA within a professional context of reduced time available for individual work. This could be linked more

widely to factors within LA EPSs, for example increased demand on services leading to capacity of EPs to become increasingly stretched (Atfield et al., 2023), and a perceived need to use limited time efficiently (Stacey, 2017). However, Stacey (2017) points out that this depends on the notion that DA takes longer to carry out than alternative assessment methods, which may not be the case.

Concerns Around DA Rigour, Reliability and Validity. Concerns around statistical rigour, reliability and validity have been discussed in relation to DA (Kennedy, 2006; Stacey, 2017), and also could be influencing the assessment decisions of EPs. The debate around validity of DA is complex, as the aims of DA can vary according to the methods and procedures used, therefore determining validity and whether DA measures what it intends to will differ (Lidz, 2014; Stacey, 2017; Tzuriel, 2000a). Concerns around statistical rigour could be linked to a number of other factors discussed, including confidence of EPs in the approach and perceptions of DA in a LA professional context. It has been suggested that DA would be most usefully validated in real-life educational situations (Stacey, 2017), although the helpfulness of viewing DA through a scientific paradigm such as validity has also been questioned (Feuerstein et al., 1981).

Reduced EP Confidence and Training. If EPs do not feel confident in DA, they may be less likely to use it, and therefore another barrier to DA may be perceived skills and knowledge linked to practitioner confidence and perceived competence in using DA. A lack of confidence has been reported as a barrier to use of DA (Murphy, 2023; Stacey, 2017), and peer and supervisor support has been reported as a facilitator (Deutsch & Reynolds, 2000; Murphy, 2023; Stacey, 2017). Linked to this, lack of training in the approach has also been reported as a barrier (Deutsch & Reynolds, 2000; Elliott, 1993; Stringer et al., 1997), with training reported as a facilitator to EP and TEP use of DA (Murphy, 2023; Stacey, 2017). Perhaps linked to training and confidence is that DA encompasses a breadth of approaches, procedures and techniques, which could be confusing to practitioners (Elliott, 1993; Hill, 2015; Stringer et al., 1997), maybe especially so if they have not received sufficient training and support. Some TEPs have suggested that a lack of confidence and feelings of competence could also be due to DA having a sense of ambiguity, subjectivity and being difficult to administer and interpret (Murphy, 2023). This is reported to perhaps be in contrast to standardised assessment, which may provide

feelings of safety due to a set script. This is also shared by Hattersley (2020), who reflects that DA can seem more challenging to interpret and report, possibly linked to being 'in the moment' during the assessment and therefore recording responses being challenging. Access to resources and materials have additionally been reported as barriers to EP use of DA (Deutsch & Reynolds, 2000; Stacey, 2017), and this could be linked to a number of barriers discussed, such as training, confidence, how different assessments are viewed within LAs as well as providing an additional pragmatic challenge.

Overall, there appear to be a number of potential barriers to EPs using DA. These may have contributed to DA not being more widely used despite factors which may influence EPs to choose DA. Looking at the more recent literature, it could be wondered whether some of the barriers discussed 25 years ago remain, in which case action to address these would be long overdue.

1.3.3. What are the Outcomes That Occur When EPs in the UK use DA?

From the studies included in the literature review, eight focus more specifically on the outcomes that occur when EPs use DA. These are predominantly qualitative, small-scale studies completed by practitioner EPs, with several utilising case study methodology. Existing research tends to focus on more direct outcomes of DA such as changes in the child's learning, but also related issues such as staff perceptions of the usefulness of DA. These studies are displayed in Table C1 in Appendix C. Studies are also discussed below, and this has been structured according to broad area of focus and the methodology used. This section is concluded with a brief consideration of factors hypothesised to affect the outcomes of DA.

Case Studies on the Outcomes of DA

Several of the earlier studies exploring the outcomes from the use of DA by EPs used case study methodology, as referred to by Stacey (2017). Firstly, Elliott et al. (1996) describe the situation of a 9 year old boy undergoing assessment by an EP due to concerns with his progress. The paper reports several positive outcomes from using DA, including providing an environment which helped the child to become less apprehensive of the test situation, clearer identification of the cognitive processes underlying the child's performance and the opportunity to explore affective factors contributing to the child's performance. It was also reported that a discussion

with the EP gave the teacher of the child a more optimistic view of his learning difficulties, along with insights about how teaching approaches could be altered to meet the child's needs.

Similarly, Birnbaum and Deutsch (1996) document EP use of DA with an 11 year old boy, where there were concerns around his memory and processing speed. DA was reported to provide information about progress as a result of repetition, the type of mediation which supported him, his cognitive functions and affective factors impacting on learning potential. The authors suggest that this was particularly helpful to teachers in the context of the (then) new SEND CoP. These conclusions show similarities to the findings of the previous case study by Elliott et al. (1996).

Lauchlan et al. (2007) also use a case study methodology to illustrate some of the outcomes from EP use of DA. This involved an 8 year old boy working with an EP due to reading, number and language difficulties. The paper reports positive changes in the child's confidence, independence and effort. It was also reported that the child was happier to attend school and motivated to repeat the DA activity. This case study therefore focuses more on the outcomes for the child themselves, and explores affective outcomes that might arise from the DA process.

In a more recent case study, Stacey (2017) explored the outcomes from EP use of DA for one SENDCo. The DA was reported to impact upon the beliefs of the SENDCo, and their approach to working with the child. This included challenging assumptions about what might help support the child, reminding them of the child's strengths, and feeling more comfortable with their approach to working with the child. There were also changes to the child's individual education plan as a result of the DA process. This suggests outcomes of DA for the adults around a child, which is important for the child when considering a bioecological framework (Bronfenbrenner, 1979). The changes to the child's plan would also suggest a beneficial link between the DA and subsequent intervention, which is a key element of DA practice (Yeomans, 2008).

It is interesting to critically consider the use of case studies as evidence in DA, with Elliott (2003) expressing the view that future empirical studies should go beyond case studies. Nonetheless, the utility of case study research to EPs has been highlighted (Boyle & Lauchlan, 2009), and it been suggested that case studies could

be used to show the development of EP work within services over time (Fallon et al., 2010). It has also been suggested that as EPs can work with diverse populations, inter-individual variance may lead to significant difficulties with the generation of practice-based evidence through group designs (Gulliford, 2015). This could include consideration of the use of DA, with Stringer (2018) suggesting that case study research can play an important role in DA research if greater rigour is applied. This could include baseline and intervention phases, multiple data points and repeated measures with clear definition and objectivity (Barlow et al., 2009; Gulliford, 2015; Hitchcock et al., 2014). The case study by Stacey (2017) appears to have been carried out with more rigour than the earlier studies, reporting collection of multiple data sources and sharing analysis methods, whereas earlier studies appear to be more of a reflective commentary.

Yin (2003) refers to a 'representative' or 'typical' case. This aims to capture the circumstances of a commonplace situation and can be used to generalise to theoretical propositions, rather than populations, although there are questions around how possible it is to identify a 'typical' case in EP DA practice (Stacey, 2017) due to the diversity of EP work previously mentioned. However, it could be argued that case studies allow an in-depth exploration of a particular situation, offering the opportunity to tentatively explore theories and hypotheses, and can act as a basis for future research. They may also offer ecological and social validity and insights into the mechanisms of an intervention (Barlow et al., 2009; Gulliford, 2015; Hitchcock et al., 2014), and could be sensitive to highlighting important factors related to DA that are difficult to quantify, for example a learner's approach to learning tasks or problem solving skills. Case studies therefore seem to have a valuable place in the literature on EP use of DA, but could perhaps be complementary to alternative methodologies.

Semi-Structured Interview and Focus Group Studies on the Outcomes of DA

Several studies explore the outcomes of DA using interviews and focus groups. A study completed by Landor et al. (2007) explored the perceived outcomes from EPs feeding back the results of DA to the children, verbally and using video. The study included 14 children aged between 6 and 11 years. The children and their teachers took part in semi-structured interviews before and approximately six weeks after the feedback from the DA session, and these were analysed thematically. Results suggest that feeding back the results of DA to the child may lead to

perceptions of general positive change from both teachers (73%) and children (75%), and this included an improvement in teaching and learning strategies and in the child's understanding of these strategies. From the feedback of an observer, the video feedback was reported to be a positive experience, giving parents and teachers the opportunity to see the child learning effectively and observe the mediation, possibly shifting the balance of power as everyone was able to make their own judgements. The authors acknowledge several limitations of their study, and provide reasonable justifications for their decisions. For example, different EPs are likely to have delivered the DA differently, introducing variables that make it difficult to identify what led to the positive outcome. However, this is likely to be inevitable, as DA is designed to adapt to the developmental level of the child. In addition, conclusions are limited to a 6-week follow up period. Whilst this is a longer follow up period than the majority of studies and the pragmatic constraints can be acknowledged, it would be interesting to see if outcomes are maintained beyond this. Overall, these results seem to suggest that there may be some positive outcomes from using DA. The study also provides promising results for the use of video feedback techniques to support DA.

A thesis by Wills (2008), with the same data also reported in Lawrence and Cahill (2014), used qualitative data to explore the views of children, parents and teachers regarding EP use of DA. It is noted that the impact of DA in educational psychology had not yet been fully explored from 'service user' perspectives. Nine children aged between 7 and 14 years, all with SEN and from a range of backgrounds, participated in a DA session with an EP. The EP then wrote a report and discussed this in a consultation with the child's teacher and parents. Following this, semi-structured interviews and focus groups were carried out, and data was analysed using an inductive method of thematic analysis. Results appear to show perceived positive outcomes of DA for the child, including in their self-perceptions, self-esteem, emotional wellbeing, motivation, self-belief in learning situations and social relationships. DA was reported to provide useful information to parents and teachers, and their view of the problem shifted from within the child to consideration of the environmental context and their role within this. This was linked with a more optimistic view of the child and their future, demonstrating a holistic impact of DA on the child and bearing similarity to findings from Elliott et al. (1996). DA was described as a positive experience for the child due to being child centred, focused on the process of learning and allowing experience of success and improvement. These are promising results with interesting implications, and as the authors note, suggest that DA forms a worthwhile and valuable part of EP practice.

Nonetheless, it is important to acknowledge the limitations of this study which have been acknowledged by the authors and can also be applied to several of the qualitative studies in this area. These are common to qualitative research, and include implications of the researcher-practitioner role, generalising from the research context, accountability of the researcher to the EPS and small number of participants. Therefore, whilst the data collected is rich, and forms an interesting exploration of the outcomes of DA for those involved, conclusions must remain tentative. It would be helpful to replicate the study within different contexts to examine the extent to which these findings could be applied more widely, for example to different age groups or areas of need, and this might also help to determine when DA is most useful and why. The potential for the attitudes and beliefs of the first author to have impacted upon the results is also acknowledged in the paper. However, it might be concluded that this is an unavoidable part of qualitative and practice-based research, and it seems the author took steps to manage this. Braun and Clarke (2022) also suggest that researcher subjectivity can be viewed as a primary tool for some types of qualitative data analysis, as knowledge generation is inherently subjective. This moves away from the notion of researcher bias, suggesting that this is situated within a more positivist epistemological stance that is not compatible with many forms of qualitative research.

In a qualitative study by Murphy (2023), TEPs reflected on some of the perceived outcomes of DA during interviews. These included providing specific information about the child's areas of strength and need which can help to support a child's learning, reframing a narrative around a child so that key adults could better understand them and identifying strategies that could translate into the classroom and teachers could implement. Although these were not addressed empirically, they are interesting reflections that could be further explored.

Extended critical discussion around the use of primarily qualitative methodologies in DA research, linked to epistemological position and the conceptualisation of 'evidence' within EP practice, is contained within the conclusions and discussion section.

School Staff Perceptions of DA

Linked to the outcomes of DA are studies exploring school staff perspectives of DA, including how useful DA is felt to be, and the following studies were judged to be relevant to consider. Freeman and Miller (2001) explored the usefulness of DA to school staff. They distributed questionnaires to SENDCos, including reports based on norm-referenced/ psychometric assessment, criterion-referenced/ curriculum related assessment and DA. Participants were then asked to rate the familiarity of this information in EP reports, the usefulness of the information in understanding a child's difficulties, and usefulness in constructing an individual education plan for the child. Fifty-nine responses were received. SENDCos rated information from criterionreferenced assessments to be the most useful for understanding the child's needs and planning teaching responses. However, although DA was rated as being less familiar, it was rated as being more useful than norm-referenced measures understanding students' difficulties and as a basis for future planning for that student. This is an interesting finding, and tentatively suggests that DA can be useful to SENDCos, and more so than standardised assessment. However, there is little depth to the results, and potential reasons why different types of assessment were rated as more useful would be valuable to understand.

This study bears similarities to a thesis study where teachers were interviewed about the information gained from DA (Lauchlan, 1999). Conclusions from this study were also positive, with teachers reporting that the information from DA was valuable and relevant to their job, including providing useful suggestions and recommendations. This is encouraging, although interesting to note that DA in this study was conducted in a relatively standardised way, with a measure of learning potential produced. It would be interesting to know whether teachers would feel the same about a less structured use of DA. In addition, both of these studies were carried out prior to the SEND CoP (Department for Education, 2001), and there have been several significant updates to legislation since then. It would be interesting to

repeat these studies in a contemporary context, and explore whether attitudes have changed.

Factors Affecting Outcomes of DA

Some consideration has been given to the factors that might affect the outcomes of the use of DA by EPs. Yeomans (2008) considers what may be conducive to the development of links between assessment and intervention when EPs use DA. They suggest that agreeing common assessment and intervention goals with staff prior to the work taking place might increase motivation to implement interventions, and that a follow-up discussion would be helpful, especially if staff are able to observe the DA session taking place. It is also suggested that embedding the teaching of thinking skills in the taught curriculum would help in implementing identified interventions to improve cognitive functions. The sharing of a common language between EPs and school staff is also suggested to be important, otherwise key messages can be lost. The CAP (Deutsch & Mohammed, 2008) is suggested to be a useful tool in supporting this. Similarly, Lauchlan and Carrigan (2013) provide guidance and materials to support DA practice, including their list of cognitive and affective learning principles, and it is suggested that a small number of principles should be focused on to avoid confusion. They also suggest that the child should be involved in the follow up to the assessment, and propose that a consultation approach should be used alongside DA. Lidz (2014), and Lidz and Haywood (2014), also argue that consultation should be part of DA. This is linked to supporting teachers, parents and other mediators to accept recommendations and interventions, increasing confidence and competence to deliver them. These are all logical suggestions, and possibly point towards DA as a more holistic assessment process, including more than just the assessment activity. However, these are only hypothetical at this stage, and it would be interesting to explore whether there is evidence for these factors influencing the links between DA and subsequent intervention in practice, which may be an area for further research.

Stacey (2017) suggests a best practice activity system for DA, based on their research. These are conditions that have been linked to positive outcomes using pre and post assessment measures within the case study. This system has been summarised in Table D1 in Appendix D, alongside factors suggested within other papers. Stacey (2017) goes on to suggest that a realist evaluation approach to DA

research would be valuable, seeking to explore the question posed by Pawson and Tilley (1997): 'What works, for whom, in what circumstances?' (Stacey, 2017, p. 217). This would allow EPs to further consider how they might carry out DA in order to increase the potential for positive outcomes, and begin to develop theory around why this might be the case. It feels that currently, the literature in this area is sparse.

1.4. Conclusions and Discussion

1.4.1. Summary and Discussion of Findings and Areas for Future Research

This review has given an overview of the definitions of DA as used by EPs in the UK, considered how and why the use of DA has changed over time, and explored the outcomes that occur when EPs use DA. DA aims to explore a range of cognitive functions and affective factors that influence learning. This is done through mediation, where the examiner intervenes in the task to support the examinees performance, and this is primarily based on the work of Feuerstein. DA has been defined in a number of ways, with synthesis of definitions suggesting four common features of: giving information on cognitive processes, involving mediation or scaffolding, linking to future intervention and giving information on affective factors impacting learning. However not having a consistent definition of DA within EP practice could lead to confusion and poorer quality use, which would constitute a practical-knowledge gap (Miles, 2017). Therefore, research which seeks to develop frameworks for practice in this area are welcomed as an area for future research (Green & Birch, 2019). In addition, a number of different tasks are mentioned within the literature, including domain-specific and domain-general tasks. It might be helpful to have an increased understanding how often these are used by EPs, and what different tasks might add to an assessment situation, to aid professional decision making in practice.

It seems that DA has historically not been used by EPs as frequently as other assessment methods, although evidence is tentatively suggesting that the use of DA may have increased. In addition, it appears to be used by the majority of TEPs, which could reflect greater emphasis within training courses. However, although this literature review has suggested how the use of DA has evolved over time, past estimates may not be relevant to the current professional context, especially since the Covid-19 pandemic may have impacted EP practice. This suggests a knowledge

gap in this area (Miles, 2017). A useful objective for future research would therefore be to gain a more current understanding of the number of EPs using DA in the UK, their reasons for this, and their perceptions of the barriers and facilitators to the approach (Lawrence & Cahill, 2014; Stacey, 2017; Wills, 2008). A large-scale survey, possibly using mixed-methods, that could represent a significant proportion of the profession would be exceptionally helpful. Research into the nature of the use of DA amongst EPs in the UK would also help clarify how definitions of DA are being interpreted by practitioners.

There are several reasons why the use of DA by EPs in the UK might have increased over time. These include criticality around the use of standardised assessments leading EPs to use DA as an alternative, but EPs may also choose to use DA because of the perceived benefits of the approach. However, it appears that some barriers to the use of DA have persisted over time, and therefore may have limited its widespread use. There is an empirical gap (Miles, 2017) in research investigating these factors in more detail, and from the perspectives of EPs and other stakeholders, which is an area that could be explored in further research. In particular, research comparing the use of standardised and dynamic approaches to assessment would be interesting (Stacey, 2017; Wills, 2008). Additionally, research into how the perceived barriers to EP use of DA may be overcome, for example by using video supervision (Callicott et al., 2019), would be welcomed.

Qualitative research suggests that DA can have positive outcomes for a number of people involved, including the child, school staff and parents. An interesting overall point for reflection is that the research into DA currently consists primarily of case studies or small-scale, qualitative studies. Case studies can be a valuable contribution to the literature on DA, and may align well with the nature of EP practice. However, greater rigour may be required, and case studies could be used alongside alternative methodologies to ensure there is not a methodological gap in the research base (Miles, 2017).

More generally, qualitative approaches have been described as helpful to illustrate the quality of an intervention, giving rich detail and capturing the perspectives of those involved (Gulliford, 2015). It appears that the existing research base into DA provides useful starting points to confirm some of the theoretical

assumptions behind the use of DA by EPs, and for EPs to take forward and reflect on in their practice. It has been suggested that qualitative research should be judged against criteria such as: sensitivity to context, commitment and rigour, coherence and transparency, and impact and importance (Yardley, 2007, 2008). Similarly, Gough (2007) proposes a weight of evidence model, which considers methodological quality of the study on its own terms, relevance of the study to the question being addressed and relevance of the topic to review objectives to give an overall judgement of a study's evidence quality for review. Several of the studies evaluated in this review would be judged to be valuable within EP practice by these parameters.

Within the current research, many of the recorded changes are those that have been perceived by participants, and the significance of these perceived changes may depend on the ontological and epistemological positions adopted by those interpreting the research (Boyle & Kelly, 2016; Robson & McCartan, 2016). A position of constructivism suggests that there is no objective, true reality, and reality is constructed by people and cultures (Fox, 2003). Therefore, qualitative measures such as those currently being used to explore outcomes of DA would be accepted as meaningful to the people involved in the study and context in which it takes place. Realism, including critical realism, integrates a realist ontology with a constructivist epistemology, suggesting there is a real world that exists independently of our perceptions, theories and constructions, but that our understanding of this world is inevitably a construction from our own perspectives and standpoint (Maxwell & Mittapalli, 2010). A critical realist position would also accept a range of research methodologies to be meaningful in context, including exploring the underlying processes and mechanisms that can explain events (Brunson et al., 2023) and acknowledging that knowledge reported is not independent of any particular viewpoint (Maxwell & Mittapalli, 2010). Critical realism has been suggested to be the approach with most immediate relevance to educational psychology (Kelly, 2016; Prendeville & Kinsella, 2022).

An alternative positivist position would suggest that a direct and objective view of the real world can be gained through experimental methods, which can establish causal relationships (Fox, 2003). This may favour quantitative measurement of controlled variables in order to objectively establish a causal relationship between

DA and its outcomes. However, DA as used by EPs could be described as a complex social phenomenon. Therefore, it could be assumed that DA cannot be adequately explored through measurement of single variables as would be expected from a more positivist theoretical perspective (Gulliford, 2015), and the linking of input variables to output variables may be challenging (Cartwright et al., 2010). Experimental group designs may also be impractical in educational settings, ignore individual differences and contexts, and do not incorporate the crucial perspectives, opinions and values of stakeholders (Sedgwick & Stothard, 2021). A more positivist approach may also require common agreement on what defines and constitutes DA practice, where currently there appears to be variation. It may be that such an approach to research within EP practice would be incompatible with the values of the profession (Gulliford, 2015; Miller et al., 2008). More specifically to DA, it has been suggested that it would be illogical to judge a more qualitative, process-based approach to DA against the standards applied to more quantitative dynamic testing (Feuerstein et al., 1981; Stringer, 2018). It could therefore be argued that largerscale experimental studies into the outcomes of DA would not be practical or desirable.

Wider assumptions around what constitutes appropriate evidence may also impact the decisions EPs make. The term 'evidence-based practice' originated in the medical sector, and is underpinned by a research hierarchy (Boyle & Kelly, 2016; Sedgwick & Stothard, 2021). This gives the highest weighting to designs which maximise internal validity and support causal inference, for example systematic reviews, meta-analyses and randomised controlled trials (Sedgwick & Stothard, 2021), so would perhaps be more aligned with a positivist position. However, this notion of evidence-based practice may have challenged the epistemological foundations of the EP profession (Gulliford, 2015; Miller et al., 2008), with EPs in one study suggesting that they perceive the utility and social value of their practice to be more important than its alignment with a recognised evidence base (Burnham, 2013).

The idea of practice-based evidence would support the use of a number of research designs in more natural settings, and recognise that qualitative, small-scale studies can be valuable in developing understanding of how and why certain situations arise and lead to the development of theory (Aveline & Shapiro, 1995;

Sedgwick & Stothard, 2021). The use of evidence by EPs may therefore be better aligned with the concept of practice-based evidence (Sedgwick & Stothard, 2021), and this may fit with a more constructivist or critical realist position. It may also be that the boundaries of such terms should be redrawn to become more relevant to EP practice. In one study, EPs spoke about their conceptualisation of 'evidence-based practice' being a consideration of what works within a specific context (O'Hare, 2015), and it seems sensible that the appropriateness of certain research methodologies and designs depends on the question that a practitioner is hoping to answer (Boyle & Kelly, 2016; Odom et al., 2005). It is therefore suggested that EPs could expand their views on what 'evidence' means, as there tends to be an underlying assumption that 'evidence' is synonymous with 'research', whereas 'evidence' can also encompass evidence from practitioner experience and judgement, evidence from the people affected by the decisions, and evidence from the local context (Barends et al., 2014; Briner et al., 2017; O'Hare, 2015).

Additional studies into the outcomes of DA could allow further exploration of the outcomes from DA across different contexts (Landor et al., 2007; Lawrence & Cahill, 2014; Stacey, 2017; Wills, 2008), and reduce any population gap that might exist (Miles, 2017). It is also noted that there is a general lack of more recent research considering outcomes from DA, which would be important to explore as the role of EPs has been impacted by contextual factors over time. In addition, a greater range of research methodologies in this area may allow further tentative triangulation of findings, due to a current methodological gap (Miles, 2017). It has been suggested that this might allow outcomes from DA to be more rigorously evaluated (Landor et al., 2007; Wills, 2008). From a more traditional, positivist perspective of evidence-based practice this could be considered to be important to ensure that EPs are following professional guidelines, and it may be that in an ideal world this would be helpful to complement existing research.

However, larger scale quantitative evaluation studies looking at outcomes of DA may be challenging due to resources and the requirement to operationalise and measure complex variables, and could be perceived as less meaningful that qualitative studies. It could be that when considering DA, a qualitative approach may be most suitable given the nature of the questions being addressed, objectives of the research, and wider epistemological position of the EP profession. Regardless of

methodologies used, it seems that EPs faced with real world issues and incomplete research bases are likely to draw on available evidence, interpreted broadly to include reflection on their own experience and feedback on the outcomes from their practice. It may also be helpful for future research to explore factors which may mediate the outcomes from EP use of DA (Stacey, 2017; Yeomans, 2008). It has been suggested that an approach such as realist evaluation (Pawson & Tilley, 1997) which aims to identify and pattern the relationships between the contexts, mechanisms and outcomes of an intervention, and which aligns with a realist epistemology, may offer a compromise between opposing theoretical positions (Gulliford, 2015). With regards to DA, this has been explicitly suggested by Stacey (2017).

To summarise, the suggested areas for future research developed from this literature review are:

- Developing definitions and frameworks to support DA in EP practice.
- How and why different DA tools are used by EPs in practice.
- How many EPs currently use DA in their practice and why, including perceived barriers and facilitators to the approach.
- How facilitators to EP use of DA might be supported, and how perceived barriers could be overcome.
- Whether perceptions around the perceived benefits of DA can be empirically supported, and a comparison with standardised assessment approaches.
- The outcomes of DA for children, parents and teachers, using a range of methodologies and exploring longer-term outcomes.
- An extension of current research on the outcomes of DA to different populations and in different contexts.
- Factors that might mediate the outcomes of DA, including use of a realist evaluation methodology.

1.4.2. Summary of Implications for EP Practice

It is hoped that this literature review will contribute to the growing body of research detailing the use of DA by EPs in the UK, and that it may have implications for EP practice, contributing towards making DA more attractive, relevant and accessible to EPs and service users (Hill, 2015). By exploring and discussing the

theoretical origins and definitions of DA, it is envisioned that this review will develop understanding of DA approaches, both within the EP profession and for other service users, such as school staff. This may also support EPs to consider which definitions of DA they may wish to adopt in practice, moving towards establishing clear guidelines and regulation for the training, supervision and practice of DA by EPs in the UK, as is felt necessary by Green and Birch (2019).

Considering why EP use of DA may have changed over time, including reasons why EPs may or may not use DA, is hoped to support EPs to make informed and justified decisions about when and why different assessments should be used. This links to the idea that DA may be more appropriate in certain situations, and different assessment methods could answer different questions. Exploring the outcomes that occur when EPs use DA, and considering factors which affect outcomes of DA could also support EPs to maximise positive outcomes from their decisions in practice. This review suggests that DA can have positive outcomes for those involved, however gives a critical consideration of the current literature base, encouraging practitioner conclusions to be tentative and based on different types of evidence. Exploring some of the perceived facilitators and barriers to use of DA could support these to be addressed within the EP profession, perhaps at a more systemic level.

Several gaps in the literature have also been suggested. It is anticipated that this recognition of gaps in the literature will be of use to researchers or practitioners interested in exploring this area further, as the rest of this portfolio will begin to do.

1.4.3. Strengths and Limitations of This Review

This review is semi-systematic, therefore while it has aimed to demonstrate a level of rigour and reproducibility, there has been flexibility in the process and the researcher has reflected on how their choices have influenced the review. It is hoped that the rationale for the choices made throughout this review have been made clear, and that it provides a useful overview of the research in this area.

It is acknowledged that this review was only completed by one researcher.

This therefore increases the risk of bias in the selection of studies and critical appraisal, due to the researcher's beliefs and prior experiences, for example around the usefulness of DA. However, the prior experiences and reflexivity of the

researcher could also be viewed as a tool in the process (Braun & Clarke, 2022). For example, prior knowledge and experience of how DA may be carried out in the 'real world' of the EP profession may have provided helpful context and depth of understanding, perhaps compared to a researcher who completes such a review aiming to be completely objective. The researcher aimed to be reflexive at all points of the literature review process, including regularly discussing ideas with a supervisor and keeping a reflective research diary.

Two reviewers are preferred during the literature selection process to ensure the quality and reliability of the search protocol (Snyder, 2019). The risk of human error during searches is likely to have been increased by having a single researcher, and there is a chance that relevant studies were missed. However, by having several search strategies, for example by searching multiple databases and reference harvesting, and by repeating searches at several points throughout the time frame, it is hoped that the vast majority of relevant studies have been captured. In addition, this review does not claim to be a 'perfect' synthesis of the literature, but rather provide an overview of the current knowledge and an original and critical perspective on this.

Chapter 2: Empirical Paper

What are the Contexts and Mechanisms That Contribute Towards Educational Psychologist Use of Dynamic Assessment Having Positive Outcomes?

Using Thematic Analysis Within a Realist Evaluation Framework to Explore Educational Psychologist Perspectives

2.1. Abstract

This qualitative study explores the contexts and mechanisms that contribute to Educational Psychologist (EP) use of Dynamic Assessment (DA) having positive outcomes. The study adopts a critical realist theoretical orientation, and uses thematic analysis within a realist evaluation framework. Seven EPs who use DA in their practice were recruited from an EP service in the East of England, and online semi-structured interviews took place. Context themes suggest that others need to be involved in the DA process, the use of DA is an active decision made by the EP within a system and that DA theory can be applied in different ways. Mechanism themes suggest that during DA, a new and shared understanding of the situation can be co-constructed, the child has a positive experience and EPs are active participants. Outcome themes suggest that DA can facilitate changes in thinking and behaviour, but that longer-term outcomes are difficult to evaluate. From these themes, context, mechanism and outcome hypotheses were developed, along with an overall initial programme theory proposing how, why and when EP use of DA may lead to positive outcomes. This was then shared and discussed within a focus group consisting of a sub-group of the original participants. Findings are presented and discussed in relation to school staff, children, EPs and intervention factors. The initial programme theory is hoped to provide a tool for reflection for EPs and managers, along with development of training and guidelines for DA practice. Strengths and limitations of the study are critically considered, and areas for future research are suggested.

2.2. Introduction and Literature Review

2.2.1. The Role of the Educational Psychologist

EPs support the development, learning and wellbeing of children and young people aged 0 to 25, and work directly with families, education settings and other professional services (Atfield et al., 2023). Currently, EPs have a statutory duty to provide psychological advice as part of the Education, Health and Care (EHC) needs assessment process (Department for Education & Department of Health and Social Care, 2015). This can include assessment and exploration of factors impacting learning for children, and assessment is commonly cited as one of the core functions of the EP role alongside intervention, consultation, research and training (Farrell et al., 2006; Scottish Executive, 2002). The EP profession is therefore inextricably linked with assessment (Atkinson et al., 2022). It has been suggested that EPs view assessment as supporting the profiling of strengths and difficulties alongside planning for intervention, and this is positioned within a context of formulation and hypothesis testing (Atkinson et al., 2022). EP assessment can include a variety of methods and may explore a wide range of domains (Atkinson et al., 2022).

2.2.2. Dynamic Assessment

DA is a method of cognitive assessment that EPs may use when working with children. DA is based upon sociocultural theory, including the concept of the Zone of Proximal Development (ZPD; Hill, 2015; Vygotsky, 1978), which emphasises the importance of context and collaborative interaction in intellectual development (Deutsch, 2017). Feuerstein similarly proposed the concept of Structural Cognitive Modifiability (SCM), which suggested that intelligence was not fixed but involved adaptation, and therefore low functioning as measured by psychometric tests can be explained by cultural difference and deprivation (Feuerstein, 2003; Feuerstein et al., 1979; Yeomans, 2008). The cognitive functions of a learner are organised into input, elaboration and output. Affective aspects of learning have also been defined by Feuerstein, with one of the purposes of DA being to identify strengths and weaknesses in these areas (Yeomans, 2008). Feuerstein additionally developed the concept of Mediated Learning Experience (MLE), where a mediator 'stands between' the stimulus and the learner, in order to help the learner make sense of the stimulus and complete tasks within their ZPD (Feuerstein, 2003; Feuerstein et al., 1979;

Yeomans, 2008). DA as it tends to be practised by EPs in the United Kingdom (UK) involves non-standardised use of MLE, aiming to provide qualitative data on the learner's performance, cognitive structures and potential to learn (Feuerstein et al., 2002; Green, 2015; Green & Birch, 2019).

DA can be contrasted to standardised, static assessments of cognitive ability, such as psychometric assessments. Static assessments have standardised testing procedures, where an examiner presents items to an examinee without any attempt to change, guide, or improve performance (Rahbardar et al., 2014), and scores on these tests can be compared to others in a similar demographic (Poehner, 2008). In static assessment, the learning process appears through its distant, objectified results, i.e. the learner's score on a test (Deutsch, 2017; Haywood & Lidz, 2007).

A comprehensive definition of DA from the perspective of an EP is given by Stacey (2017, p. 21):

'Dynamic assessment describes approaches to assessment which focus on illuminating the cognitive processes and affective factors impacting on a child's performance through the child and assessor working together on a task. Integral to the assessment is the active role of the assessor in trying to create the optimum conditions for the child to learn both content needed for the task and more general processes that can be applied to both the task and beyond. Working in this way allows the assessor to gauge the child's responsiveness to support and to use these observations to subsequently inform tailored intervention in the classroom which will help the child learn more effectively.'

Nonetheless, DA has been defined in a number of ways (Stringer, 2018), and it has been acknowledged that the use of DA seems to be a complex and often poorly defined area of practice for EPs in the UK (Green & Birch, 2019). It is possible that an absence of consensus over definitions of DA and a lack of standardised procedure could lead to confusion amongst practitioners, contributing to DA feeling unsafe as it opens practitioners up to scrutiny (Callicott et al., 2019; Haywood & Lidz, 2007). This highlights a need for further work in this area.

2.2.3. The Use of Dynamic Assessment by Educational Psychologists

Historically, DA approaches have been reported to be infrequently used by EPs (Deutsch & Reynolds, 2000), with EPs being more likely to use other assessment approaches (Woods & Farrell, 2006). However, more recent estimates suggest that the use of DA by EPs may be increasing (Atkinson et al., 2022). It has also been reported that DA approaches are being used by a majority of TEPs, and is being taught on EP University training courses (Murphy, 2023). In addition, the researcher is aware of several EP services who have commissioned training to support DA practice amongst EPs. This indicates that research into this area is relevant and current to EP practice.

There are a number of possible reasons why EPs may choose to use DA in their practice, and this could be tentatively linked to an increase over time. Amongst the profession, there has been reflection on the use and implications of different assessment types (for example, Sewell & Ducksbury, 2013), including standardised cognitive assessments. Some of the perceived flaws of such assessment as summarised by Elliott (2003) include: a tendency to lack an empirically supported theoretical framework (Flanagan & McGrew, 1997); a limited relationship between scores and instructional practices (Reschly, 1997); an emphasis on products rather than psychological processes (Wagner & Sternberg, 1984); a tendency to linguistic and cultural bias (Lopez, 1997); and an inability to guide practitioners in deriving specific interventions for educational difficulties (Fuchs et al., 1987; McGrew, 1994). The validity of using static assessments with children with additional needs (Groth-Marnat, 2009) or minority groups (Elliott et al., 2010) has also been questioned. However, it has been suggested that different methods of assessment can serve different purposes and may answer different questions (Cizek, 1997; Lauchlan & Carrigan, 2013).

It has been proposed that DA might offer an alternative assessment approach that is more empowering, person-centred and better supports inclusive practice (Stringer, 2009). Furthermore, EPs might see DA as a more ethical alternative to static assessment because of the rich information provided about learning and what could support progress, their beliefs about how they wish to work with children, and the experience of the child (Stacey, 2017). Research has suggested that EPs may perceive DA to be a positive experience for the child (Deutsch & Reynolds, 2000;

Murphy, 2023), and assessment experience of the child is reported to be an important consideration for EPs (Atkinson et al., 2022). DA may also be appropriate when EPs work with children in the Early Years (Hussain & Woods, 2019).

However, there are perceived barriers to EP use of DA, and this could be limiting the extent to which EPs are using DA in their practice. These include perceptions around different assessment methods within LAs or from schools leading to perceived pressure to complete standardised assessment (Atfield et al., 2023; Deutsch & Reynolds, 2000; Hymer et al., 2002). This could also be related to the role of the EP being linked to allocation of resources (Deutsch & Reynolds, 2000; Elliott, 1993; Hymer et al., 2002; Stringer et al., 1997). Access to DA resources and materials, along with available time, have been reported as barriers to EP use of DA (Deutsch & Reynolds, 2000; Elliott, 1993; Kennedy, 2006; Stacey, 2017; Stringer et al., 1997), with lack of training in DA also reported as a barrier (Deutsch & Reynolds, 2000; Elliott, 1993; Stringer et al., 1997). Linked to this could be a lack of practitioner feelings of confidence and competence in using DA (Murphy, 2023; Stacey, 2017), and DA having a perceived sense of ambiguity, subjectivity and difficulty to administer and interpret (Murphy, 2023). Concerns around statistical rigour, reliability and validity also appear in the literature (Kennedy, 2006; Stacey, 2017). Considering the dates of the available research, it appears that many of the historical barriers to DA use may remain relevant in the current professional context.

2.2.4. The Outcomes of Dynamic Assessment

Some research has explored the outcomes that occur when EPs use DA. From these, it has been suggested that DA can have positive outcomes for the child involved. This is reported to include: DA itself being a positive experience for the child and them being motivated to repeat it; the child being less apprehensive of the test situation; positively impacting on the child's self-perceptions, including self-esteem and self-belief in learning situations; positively impacting on learning behaviour including motivation, confidence, independence, effort, and understanding of teaching and learning strategies; positively impacting on social relationships and emotional wellbeing; and the child being happier to attend school (Elliott et al., 1996; Landor et al., 2007; Lauchlan et al., 2007; Lawrence & Cahill, 2014; Wills, 2008).

Positive outcomes of DA have also been reported for teachers. DA has been suggested to provide valuable, useful information and positive change including: gaining insights into the type of mediation that supported the child and therefore how to alter teaching approaches to meet the child's needs, providing a basis for future planning for the child; gaining insights into cognitive and affective factors impacting learning; improving teaching and learning strategies, impacting the teacher's approach to working with the child; encouraging consideration of the environmental context around the child, moving beyond locating concerns within the child and being more optimistic about the situation (Birnbaum & Deutsch, 1996; Elliott et al., 1996; Freeman & Miller, 2001; Landor et al., 2007; Lawrence & Cahill, 2014; Stacey, 2017; Wills, 2008). The final outcome was also reported to be the case for parents, for whom it has been reported that DA provides valuable and useful information (Lawrence & Cahill, 2014; Wills, 2008), although parent views are less frequently explored in this area.

Also less frequently explored are the outcomes of DA for the EP. However, some studies report outcomes including: clearer identification of the cognitive processes and affective factors contributing to the child's performance (Elliott et al., 1996); providing information about progress as a result of repetition, the type of mediation that supported the child, and cognitive and affective factors impacting learning (Birnbaum & Deutsch, 1996); and challenging assumptions about what helps to support the child, reminding them of the child's strengths, and feeling more comfortable with their approach to working with the child (Stacey, 2017). TEPs have perceived outcomes of DA to include providing specific information about the child's areas of strength and need which can help to support their learning, supporting key adults to better understand the child and identifying strategies that could translate into the classroom and that teachers could implement (Murphy, 2023).

The vast majority of these studies are qualitative, and use case study, interview and/ or focus group data. Whilst these provide meaningful insights and considerations for EPs to complement practice experience, conclusions from studies exploring the outcomes that occur when EPs use DA must remain tentative, and a number of gaps in the literature persist. Extended critical evaluation of research into the outcomes of DA as used by EPs is contained within the literature review chapter of this thesis. It has been acknowledged that 'there is little evidence to show the

impact of DA other than a handful of case studies' (Stacey, 2017, abstract), and there have been calls for studies exploring the impact of subsequent interventions based upon DA approaches (Elliott et al., 2018). Further research into the outcomes that occur when EPs use DA is therefore justified.

2.2.5. Applying a Realist Evaluation Framework

Some literature has begun to consider the contexts which might affect the outcomes of DA, including discussion around best practice approaches when EPs use DA (for example Stacey, 2017; Yeomans, 2008). However, there is not currently any literature explicitly exploring the contexts or mechanisms that may contribute to positive outcomes when EPs use DA. In other words, the question 'how, why and when does EP use of DA have positive outcomes?' remains. This constitutes a knowledge gap (Miles, 2017), and has been identified as an area for future research (Stacey, 2017; Yeomans, 2008). It is suggested by Stacey (2017) that future research into DA could adopt realist evaluation methodology to further explore the factors which make it more likely that DA will result in positive outcomes.

To begin applying a realist evaluation framework to DA as used by EPs, contexts, mechanisms and outcomes that may be important when EPs use DA have been tentatively suggested and grouped into themes from an initial synthesis of the existing literature. These are detailed with references in the development of the a priori coding template in Tables E1 and E2 in Appendix E, and an overview of themes is given in Table 3.

Table 3

Contexts, Mechanisms and Outcomes Developed From DA Literature

Contexts	Mechanisms	Outcomes	
Involving school staff in the DA	School staff change their	Environmental changes made by	
process, for example through	understanding and perceptions	school staff to support the child's	
consultation, observation and	of the child's needs.	needs.	
using accessible language.			
Use of DA in certain situations	Child experience of DA being	Child changes their perception of	
when standardised assessment	positive, experiencing success,	themselves and their	
may be less appropriate.	their response to the test and	understanding of their learning.	
	involvement in follow up.		
Service level factors such as	EP gains understanding of	EP has a clearer view of child	
resources, support and time	cognitive and affective learning	strengths and needs to inform	
available to EPs.	factors impacting the child.	intervention recommendations.	
Resources used by individual	EP willingness to use DA,	Longer term positive outcomes	
EPs in DA, for example tools to	including how EPs feel using DA	for the child in terms of learning,	
support assessment and	and how supported they feel by	social and emotional factors.	
recording of observations.	their service.		
Perceptions around different			
kinds of assessment from			
schools staff and within the			
wider systems that EPs work in.			

2.2.6. Rationale and Aims of the Current Study

Understanding and interpreting evidence is an important part of the EP role (Boyle & Kelly, 2016), and EPs have been described as "scientist-practitioners" (Fallon et al., 2010, p. 4). Professional guidelines (Health and Care Professions Council, 2023) state that EPs must understand the theoretical basis of, and variety of approaches to, assessment and intervention (12.5), be able to engage in evidence-based practice (11.1), and be able to justify their decisions and actions (4.1).

However, there are identified gaps in research into EP use of DA, including the outcomes that occur and factors contributing to these. This could impact the competence and confidence of EPs to understand and apply DA theory in their practice, including making informed and justified decisions about when and why different assessments should be used. Realist evaluation methodology has been suggested to be appropriate for future research into DA (Stacey, 2017). To the best

of the researcher's knowledge this framework has not yet been applied to EP use of DA, and the mechanisms that may be involved in DA have not previously been explicitly explored. Research using a realist evaluation framework would allow exploration of the outcomes that occur when EPs use DA, the mechanisms that contribute to these outcomes occurring, and the contexts that support these mechanisms and outcomes to occur. This would support the development of theory underlying EP use of DA.

By considering the contexts in which positive outcomes may occur, it is also hoped that research using a realist evaluation framework could lead to suggestions of best practice approaches. This is important to ensure that DA practice amongst EPs is of high quality, and therefore can have maximum positive outcomes for children and those who support them. Such research would also be anticipated to support the development of guidelines and regulation for the training, supervision and practice of DA by EPs in the UK, as is felt necessary by Green and Birch (2019). This may be especially important, as training and supervisor support have been reported as perceived facilitators to EP use of DA (Deutsch & Reynolds, 2000; Murphy, 2023; Stacey, 2017). Clearer guidelines could also support feelings of practitioner confidence perceived competence in use of DA, and reduce perceptions of ambiguity, previously reported as barriers to EP use of DA (Murphy, 2023; Stacey, 2017).

The current study will therefore aim to explore the question:

What are the contexts and mechanisms that contribute towards EP use of DA having positive outcomes?

Based on a realist evaluation framework, this will be done by considering the sub-questions:

- What are the contexts that occur when EPs use DA?
- What are the mechanisms that occur from these contexts when EPs use DA?
- What are the outcomes that occur from these contexts and mechanisms when EPs use DA?

2.3. Methodology

2.3.1. Ontology and Epistemology

A theoretical perspective is a way of looking at the world and making sense of it (Crotty, 1998). This includes ontology, which is the study of being, concerned with what is, and epistemology, which is how we understand what is entailed in knowing, or how we know what we know (Crotty, 1998). The broad theoretical perspective adopted by the researcher is realism. Realism integrates a realist ontology with a constructivist epistemology, suggesting there is a real world that exists independently of our perceptions, theories and constructions, but that our understanding of this world is inevitably a construction from our own perspectives and standpoint (Maxwell & Mittapalli, 2010). Realism is described as providing a helpful language for addressing issues of 'how' and 'why' something happens, and realist research can lead to findings that are directly related to the situations researched, as it provides a way of approaching uncontrolled situations (Robson & McCartan, 2016).

Further distinction can be made between different strands of realism. The two most relevant to the current study are scientific realism and critical realism, although they do share a number of elements (Marchal et al., 2012). Scientific realism advocates that it is worth trying to adjudicate between alternative explanations, allowing theories to be developed and tested (Pawson, 2006). If evaluations cumulate over time, understanding of how context, mechanism and outcome elements are connected is increased (Pawson & Tilley, 1997), perhaps leading to an increasingly accurate interpretation of the 'real world' (Birch, 2015). Critical realism emphasises that explanatory possibilities can be endless, and the task of the researcher is to be critical of thoughts and actions that lie behind false explanations (Bhaskar, 2002). Critical realism also incorporates ideologies from an emancipatory approach to research, such as acknowledging of the perspectives of participants and promoting social justice (House, 1991; Robson & McCartan, 2016). Within critical realism, both social structure (for example the organised set of social institutions and patterns of institutionalised relationships) and agency (thoughts and actions taken by people) are said to be important in understanding social activity (Bhaskar, 1975; Mukumbang & van Wyk, 2020).

It is acknowledged that the realist evaluation framework is based on scientific realism, with its focus on theory testing and development (Pawson & Tilley, 1997). However, the perspective adopted within this research is critical realism. Critical realism has been previously suggested to be the approach of most immediate relevance to educational psychology (Kelly, 2016; Prendeville & Kinsella, 2022), and research studies in the field of EP practice have adopted a critical realist perspective within a realist evaluation framework (for example Chadwick, 2014; Lunt, 2016). Other papers have even suggested that realist evaluation can be underpinned by critical realism (Smeets et al., 2022), and that critical realism can encompass the elicitation, testing and validation of theories based on mechanisms that are hypothesised to produce social events (Mukumbang & van Wyk, 2020). In addition, understanding about the outcomes of DA and how, why and when these occur are at early stages. Although the current study hopes to contribute to this, at this stage in knowledge development the critical realist principles of considering reasons behind possible explanations seem more appropriate that adjudicating between them.

2.3.2. Realist Evaluation

Realist evaluation seeks to answer the question 'What works for whom in what circumstances' (Pawson & Tilley, 1997, p. 85), and more recently this has ended with '... and why' (Pawson & Manzano-Santaella, 2012, p. 178). Realist evaluation is one form of theory-driven evaluation which emphasises development of 'context-mechanism-outcome' theories of how programmes work (Astbury & Leeuw, 2010). Theories are constructed by recognising that outcomes are the result of mechanisms triggered in a specific context, and theories are developed in a cycle (Jack, 2022; Pawson & Tilley, 1997). For visual representations of realist evaluation methodology, see Figures 1 and 2.

Pawson and Tilley (1997) explain how the realist evaluation approach is based on a generative theory of causation, and refer to work by Harré (1972). This theory suggests that as well as observing regular patterns between causes and effects, there is a 'real' connection between events, and that causation can happen internally as well as externally, so can be observed. Pawson and Tilley suggest 'cause describes the transformative *potential* of phenomena' (p. 34), with one event triggering another only in the right circumstances at the right time. Therefore, 'causal outcomes follow from mechanisms acting in contexts' (Pawson & Tilley, 1997, p. 58).

Figure 3 illustrates a generative theory of causation. This is in contrast to a successionist theory of causation, which suggest that causes and outcomes are linked, but we cannot observe the causal forces between them as causation is 'external', and this is more closely linked to experimental logic (Pawson & Tilley, 1997). Data analysis in realist evaluation takes a 'retroductive' approach, which refers to 'the identification of hidden causal forces that lie behind identified patterns or changes in those patterns' (Greenhalgh et al., 2017a, p. 1). Retroduction uses inductive and deductive reasoning along with researcher insights to understand generative causation, and considers social and psychological factors that may influence outcomes (Gilmore et al., 2019).

Figure 1

The Realist Evaluation Cycle, Based on Pawson and Tilley (1997, p. 85)

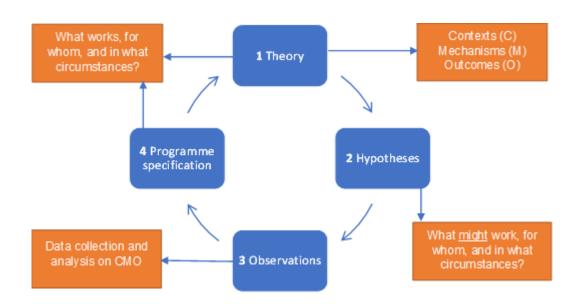


Figure 2

Features of a Realist Evaluation Approach, Based on Timmins and Miller (2007, p.10)

1a Programme theory based on a review of relevant research literature and expert/ practitioner knowledge.

1b An initial programme specification derived from programme theory, which maps the programme in terms of assumed contexts, mechanisms, and outcomes.

2 Hypotheses derived from the initial programme specification.

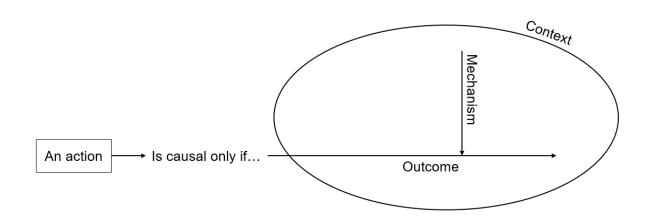
3 An evaluation design and associated data gathering approaches, as suggested by the hypotheses, to help check whether the programme is working as anticipated.

4 Findings that highlight how the programme might be modified or inform replications in other settings

(generalisation). The would lead to a clearer and more effective programme specification.

Figure 3

Generative Causation, Reproduced From Pawson and Tilley (1997, p. 58)



... its outcome is triggered by a mechanism acting in context

Throughout this research, several terms will be used which are specific to a realist evaluation framework. Contexts (C) in which a programme occurs includes location, but also individuals who participate in the programme, interrelationships between stakeholders, the institution in which the programme is operating and the wider infrastructure of the programme's setting (Jack, 2022; Pawson, 2018). **Mechanisms (M)** are the underpinning generative forces that activate in certain contexts to produce outcomes (Jagosh et al., 2015). These explain the way in which programmes can lead to observed outcomes, and include the interactions and responses of people towards the programme (Jack, 2022). Mechanisms can be at the psychological, social-group, social-institution and material level (Westhorp, 2018). **Outcomes (O)** are the consequences of a programme which emerge from the interaction between context and mechanism (Pawson & Tilley, 1997). Contexts, mechanisms and outcomes relevant to EP use of DA can be situated within different levels of an ecological system (Bronfenbrenner, 1979). This could include: the child, their family and school including school staff at the microsystem; the EP and the service for which they work at the exosystem; wider government and policy factors at the macrosystem, and the way that all of these things have changed over time at the chronosystem.

In addition, realist evaluation uses several terms to refer to various stages of theory development, and some of these terms are used interchangeably in the realist evaluation literature (Marchal et al., 2012) . **Programme theory** has been defined as 'the description, in words or diagrams, of what is supposed to be done in a policy or programme (theory of action) and how and why that is expected to work (theory of change)' (Greenhalgh et al., 2017b, p. 2). A **programme specification** can then be derived from the programme theory, which maps the programme in terms of assumed contexts, mechanisms and outcomes (Timmins & Miller, 2007). **CMO configurations** can be used by realists during analysis to suggest causal links between contexts, mechanisms and outcomes (Marchal et al., 2018). Throughout this research the terms **initial programme theory** and **CMO hypotheses** are used to refer to programme theory and CMO configurations that are at an early stage of development, in recognition of the preliminary nature of the current study.

Matthews (2003) has suggested that a generative realist approach to evaluation, such as realist evaluation, could be used by EPs to build an evidence-

base, and support an understanding of how psychological processes work in real-world practice. Realist evaluation frameworks have been used to evaluate aspects of EP practice, including types of group supervision (Chadwick, 2014; Lunt, 2016; Soni, 2010), and exploring how EPs interpret children's views (Ingram, 2013). It has also been used within the education research field by TEPs and EPs to evaluate: an alternative education programme (Birch, 2015); a whole-school learning programme (Webb, 2011); parenting interventions (Jarrett, 2016; Prashar, 2018); 'forest school' (Southall, 2014); 'consultation groups' (Wood, 2014); a school-based intervention (Francis et al., 2017); factors that influence teacher practice change (Forrest et al., 2019); and the developing use of solution-focused approaches in school (Simm & Ingram, 2008). These studies vary in how realist evaluation frameworks and methodology were applied.

A realist evaluation framework has been suggested as a future avenue of research for EP use of DA (Stacey, 2017), and appears appropriate to begin considering the outcomes that occur when EPs use DA, along with how, why and when these occur. This is therefore the methodological framework adopted in the current study. Although DA may not be commonly described as a programme, it is a process that takes place in complex social contexts, and can include activities and actions before and after the DA task (Lauchlan & Carrigan, 2013; Lidz, 2014; Lidz & Haywood, 2014; Stacey, 2017; Yeomans, 2008). It is hypothesised that aspects of this context can facilitate certain mechanisms, which then lead to DA having particular outcomes. DA may therefore have different outcomes, depending on the context in which it is carried out.

In the current study, thematic analysis will be used within a realist evaluation framework. Initially, themes will be developed which are contexts, mechanisms or outcomes that may be relevant in EP use of DA, and this will explore the three research sub-questions. From these, CMO hypotheses will be developed. These will be incorporated into an initial programme theory, which will allow exploration of the main research question. This study is positioned as a preliminary inquiry into the contexts, mechanisms and outcomes relevant to EP use of DA, which could form the basis of future theory development and testing. Whilst this study may not be a realist evaluation in its most traditional sense, it uses elements of the theory to guide and structure the design of the study, and this is why the term 'framework' is used. An

overview of stages from the current study can be seen in Figure 4, with numbers corresponding to the stages of realist evaluation in Figures 1 and 2.

Figure 4

Overview of Stages in the Current Study, Based on Timmins and Miller (2007, p. 10) and Webb (2011, p. 66)

1a Conducting a literature review and tentatively developing hypothesised CMOs to form an a priori coding template.



1a Phase one data collection: Recruitment of a purposive sample followed by exploratory, 'theory gleaning' semistructured interviews with seven EP participants.



1b/2 Phase one data analysis: Analysing collected data using template analysis, a type of thematic analysis, and using an evolving coding template to develop CMO themes suggested to be important in DA.



1b/2 Phase one data analysis: Use of CMO themes to develop CMO hypotheses and an initial programme theory.



1b/2 Phase two data collection: 'Theory refining' focus group with a sub-group of four EP participants to appraise and give feedback on the initial programme theory, and provide further insights and examples to inform discussion.



1b/2 Phase two data analysis: Use of coding template to organise focus group data.



1b/2 Presentation and discussion of findings, including CMO themes, CMO hypotheses and initial programme theory.

2.3.3. Data Collection

In a realist evaluation, data is collected to develop, test and refine programme theory, and although this can be qualitative or quantitative (Mercer & Lacey, 2021; Pawson & Tilley, 1997), realist evaluation has been described as a largely qualitative methodology (Maluka et al., 2011). In the context of DA, it was felt that qualitative

data would be best suited to develop and refine initial programme theories, as qualitative methodology can 'understand a complex reality and the meaning of actions in a given context' (Queirós et al., 2018, p. 369). In DA, outcomes have a complex and social nature, and this preliminary inquiry is hoped to lead to tentative explanatory hypotheses that can be further tested and refined in future research. In line with a critical realist perspective, it is acknowledged that this study is exploring events through the subjective perceptions and constructions of participants.

The current study has two data collection phases designed to develop CMO hypotheses and an initial programme theory, as seen in Figure 4. Initially, potential contexts, mechanisms and outcomes that may be relevant to DA were tentatively drawn from the literature, using the search process described in the literature review chapter of this thesis. Due to a lack of research in this area, it was not felt to be appropriate to complete a full realist synthesis, as is often done preceding realist evaluations (Pawson et al., 2005). Contexts, mechanisms and outcomes were deliberately kept broad and tentative, and therefore were not configured into CMO hypotheses at this stage. These initial contexts, mechanisms and outcomes were incorporated into an a priori coding template for the analysis of the data, which can be seen in Tables E1 and E2 in Appendix E.

The first phase of data collection in this study was exploratory. This involved 'theory gleaning' (Manzano, 2016, p. 354) semi-structured interviews with EPs, which took place via Microsoft Teams. These lasted between 30 to 45 minutes. Following this, data was transcribed and analysed using thematic analysis and potential CMO hypotheses were developed into an initial programme theory. This process is described in more detail in the data analysis section below. After the first interview, informal feedback was sought on the questions, and as a result some small adaptations were made to the interview schedule.

In the second phase of data collection, a focus group was held. The purpose of the focus group was to appraise and give feedback on the initial programme theory, including exploring whether interpretations made by the researcher resonated with participants' practice experiences, and provide further insights and examples to inform discussion. Realist evaluation literature often refers to 'theory refinement' as defined by Manzano (2016, p. 355) and Pawson and Tilley (1997),

and although it is acknowledged that this study sits at the preliminary stages of theory development, similar principles were followed. The interview and focus group schedules can be seen in Appendix F, with justification and reflection on the data collection process contained within the reflective chapter of this thesis.

2.3.4. Participant Sample and Recruitment

The participant sample for the present study is purposive, therefore participants were felt to be knowledgeable and experienced with regard to the research area (Cresswell & Plano Clark, 2011), along with consideration of availability, willingness to participate and communication of experiences and opinions (Bernard, 2017; Palinkas et al., 2015). This is typical for a qualitative study, and whilst this is not intended to be representative of the wider population, it is hoped to illustrate mechanisms in certain contexts (Robson & McCartan, 2016). Realist evaluations generally aim to gather data from key stakeholders in the process, recognising that there is a division of expertise across stakeholder groups, who have different but complementary views (Pawson & Tilley, 1997). In the context of DA, EPs are felt to be significant stakeholders, as DA forms part of EP practice. Whilst school staff, children and parents would also be considered stakeholders in DA, and their views are acknowledged as valuable to research, the current study will focus on the perceptions of EPs in relation to the contexts, mechanisms and outcomes relevant to DA. This is further considered in the reflective chapter of this thesis.

EPs were recruited from one large Local Authority (LA) Educational Psychology Service (EPS) in the East of England, which contains both urban and rural areas. EPs with experience of DA were eligible for participation. DA was defined to potential participants as use of a mediated activity to explore the factors impacting learning for a child or young person, as these are recognised as defining features of DA practice. The experiences within the sample were therefore felt to be reflective of EP practice more generally. In addition, the service had recently received training in DA from Fraser Lauchlan (Lauchlan & Carrigan, 2013; Lauchlan & Daly, 2023), and it was therefore felt that participants and the researcher were likely to have a shared understanding around definitions of DA. Through the Principal EP for the service acting as a gatekeeper, the information for the study was shared with all EPs in the service, and they were invited to contact the researcher if they

were interested in taking part. These participants were later recontacted to ask if they would like to be part of the focus group. Information sheets and consent forms for both stages of the study can be seen in Appendix G.

The final participant sample for the first phase of data collection consisted of seven EPs. This is generally felt to be appropriate for a qualitative research study (Guest et al., 2006), and this is discussed further in the reflective chapter. Participant characteristics can be found in Table 4. These have been identified from the interviews, and presenting these characteristics is intended to demonstrate the breadth of experiences within the sample. Four EPs from the original sample took part in the focus group in the second phase of data collection.

 Table 4

 Participant Characteristics From Interview Data

Role	Years as a qualified EP	Years using DA	DA training	Reported frequency of DA use	Focus group?
EP	17	16	Deutsch training Lauchlan training	Almost all individual work	Yes
EP	8	10	Initial training course Tzuriel training Lauchlan training	At least once every couple of months	Yes
EP	1	3	Initial training course Lauchlan training	Almost all individual work	Yes
Senior EP	17	18	Initial training course Lauchlan training	Four or five times a year, when defined less formally almost all individual work	Yes
EP	3	5	Initial training course Lauchlan training	One to six times per month, almost all individual work	No
EP	23	24	Initial training course Lauchlan training	Almost all individual work	No
Senior EP	18	13	Tzuriel training Lauchlan training	Once per term, when defined less formally almost all individual work	No

2.3.5. Template Analysis

For data analysis in this study, a qualitative analysis method was required that would allow contexts, mechanisms and outcomes to be coded within the data, and for these to be grouped into CMO hypotheses and subsequently an initial programme theory (Marchal et al., 2012). It was felt that template analysis (King, 1998), a type of thematic analysis, would facilitate this. Template analysis allows the use of inductive ('bottom-up', data-driven) and/or deductive ('top-down', theory-driven) analysis (King & Brooks, 2018). It was felt that a more deductive approach would allow an acknowledgement of tentative theory and ideas from previous literature. This would fit with the realist evaluation framework, described as a theory-driven inquiry (Marchal et al., 2012). In addition, the methodology focused on specific research questions, requiring CMO hypotheses to be developed from the data. However, as previous literature was limited and this was positioned as a preliminary inquiry, it was felt that an inductive approach would also facilitate the development of new ideas.

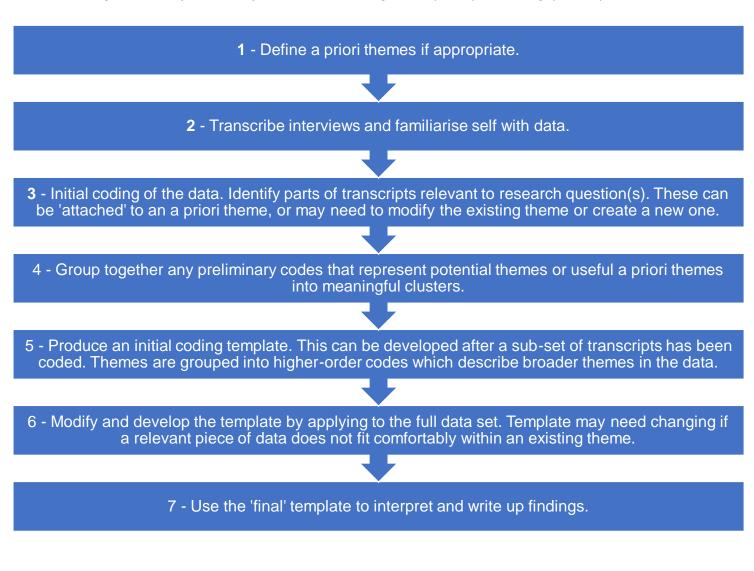
Template analysis involves the development of a coding template, which is used as a tool for analysis and iteratively revised and refined in relation to the whole dataset (Braun & Clarke, 2022; King & Brooks, 2018). This can involve a priori themes that are tentatively developed in advance of analysis, based on previous literature and key concepts for the research (King, 2023c; King & Brooks, 2018). It was decided that themes would be developed under the headings of contexts, mechanisms and outcomes, as this linked directly to the research questions. The stages of template analysis are displayed in Figure 5.

In template analysis, codes are seen as tools for the identification of themes (Braun & Clarke, 2022), with King (2012, pp. 430–431) describing these terms as:

- Themes 'the recurrent and distinctive features of participants' accounts (in interviews, diaries, blogs and so on) that characterize perceptions and/or experiences, seen by the researcher as relevant to the research question of a particular study.'
- Codes 'the process of attaching a label (code) to a section of text to index it as relating to a theme.'

Figure 5

Stages of Template Analysis Based on King et al. (2018) and King (2023b)



2.3.6. Data Analysis

The process of template analysis as used in the current study within a realist evaluation framework can be seen in Figure 6.

Figure 6

Stages of Data Analysis in the Current Study

1 - Tentative a priori themes were developed from literature review and based on study aims and research questions.



2 - Interviews were transcribed, researcher became familiar with the data by reading through. Participants were invited to check their transcripts if they wished.



3 - Initial coding of the data, any potential CMOs were highlighted in the data. These were either 'attached' to an a priori theme, an existing theme may have been modified or a new theme created.



4 - An initial coding template was produced, which involved grouping CMO codes into meaningful clusters that could represent potential themes. Themes were then grouped into higher-order themes which described broader patterns in the data.



5 - The template was applied by moving between themes and the dataset, and modified and developed as appropriate. This 'final' iteration of the template was used to tentatively develop CMO hypotheses about EP use of DA, forming an initial programme theory.



6 - The initial programme theory was shared and discussed with participants as part of a 'theory refining' focus group.



7 - The 'final' template was used to interpret and write up findings of the thematic analysis, with the CMO hypotheses and initial programme theory also presented alongside discussion from the focus group.

Prior to analysis, an a priori coding template was created from previous literature on DA. Due to the realist evaluation framework used, it seemed important that contexts, mechanisms and outcomes were defined, as these would be the aspects of the data that would help to explore the research question. In addition, the researcher was interested to build on previous research, and therefore having previously discussed contexts, mechanisms and outcomes 'in mind' throughout the analysis process seemed helpful. However, the a priori themes were tentative (King, 2012), and the template underwent significant modification throughout the analysis process. Reflective and reflexive practice throughout ensured that the researcher maintained a curious and questioning approach to the data, coded sensitively and appraised how the data might compare with pre-existing thinking and ideas, rather than fitting it into the template. Actions taken to ensure quality in the analysis process are expanded on in Table H1 in Appendix H.

When developing the a priori template, and throughout analysis of the data, the operational definitions in Table 5 were used for contexts, mechanisms and outcomes, based on definitions used by Chadwick (2014). It has been suggested that context can be enmeshed with the mechanisms through which a programme works, and they operate in relation to one another (Greenhalgh & Manzano, 2022). It has therefore been proposed that the distinction between contexts and mechanisms is an analytic decision made by the researcher in relation to the objectives of the research (Greenhalgh & Manzano, 2022; Shaw et al., 2018). In the current study, themes were carefully considered in the context of the research to consider where they were best placed, and some moved throughout the development and refinement of the themes.

Table 5

Operational Definitions of the Terms Context, Mechanism and Outcome, Based on Definitions Used by Chadwick (2014)

Context	An aspect of the environment or of the people involved in DA.		
	This could include: how school staff are involved in the DA		
	process, factors at the EPS level.		
Mechanism	Activities (including patterns of thinking or actions) linked to the		
	DA. This could include: experience of the CYP, thinking of the		
	EP.		
Outcome	ome Anything that happens as a result of the DA. This could include:		
	perceptions of people involved, environmental changes in school.		

Interview data was transcribed initially using the Microsoft Teams transcription function, and this was manually checked by the researcher. As discourse analysis was not taking place, it did not seem necessary to have a transcription that was completely verbatim. Therefore, whilst the researcher ensured that the transcript captured the intended meaning of the data to the best of their ability, for example by correcting any words that had been transcribed incorrectly and changing any automatically generated punctuation that impacted meaning, filler utterances from the researcher (for example ok, mmhmm) that overlapped with participant speech were removed, and punctuation was largely not changed. Where participant quotes have been used within the reporting of findings, the punctuation and further participant repetition and utterances have been removed to support clarity and reader understanding. Participants' transcripts were emailed back to them for checking if they wished to, however this did not result in any changes to the data.

Familiarisation notes on the interview transcriptions were made by the researcher using the comments function on Microsoft Word. The analysis process then involved more systematically coding contexts, mechanisms and outcomes that had been interpreted from the data. If felt to be appropriate, some codes were attached to a priori themes, and some higher-order themes were created as coding progressed. This coding was done manually by the researcher using NVivo, a Computer-Assisted Qualitative Data Analysis Software. After all the data had been coded, an initial coding template was developed, further clustering, categorising and

grouping themes hierarchically, remaining within the overall categories of contexts, mechanisms and outcomes.

This coding template was then further developed and modified by an iterative process of moving between the themes and the dataset. This included developing theme definitions, and considering themes in a more conceptual way. A decision was made to stop modifying the themes when changes being made were felt to be minimal, and all aspects of the data that seemed relevant to the research question had been coded (King, 2012). An audit trail of all stages of the analysis process can be found in Appendix E.

At this point, lateral links were developed between the subthemes within contexts, mechanisms and outcomes, and tentatively established some CMO hypotheses. Details were added to make these more comprehensive and illustrative of hypothesised links, and from this a graphic of the initial programme theory was developed. The process of CMO hypothesis development can be seen in Figure I1 and Tables I1 and I2 in Appendix I.

The graphic of the initial programme theory was shared with a sub-group of the original EP participants in a focus group (see information on data collection above). During the focus group, the researcher took handwritten notes on a copy of the initial programme theory. Focus group data was then transcribed using a similar process to interview transcription (described above), with participants given the opportunity to review the transcript. Quotes from the transcript were then organised into the subthemes from the coding template and the initial programme theory, and this process can be seen Figure J1 and Table J1 in Appendix J. Data from the focus group has been incorporated into the findings and discussion of the CMO hypotheses and initial programme theory. This focuses on the initial programme theory as a whole and links between different elements, to ensure it remains distinct from the initial thematic analysis. This section is divided into the CMO hypotheses most relevant to each stakeholder group: school staff, children and EPs, followed by a discussion of wider intervention factors. Further reflection on the data analysis process in this study can be found in the reflective chapter.

2.3.7. Ethical Considerations

Ethical approval was received from the University of East Anglia (UEA) School of Education and Lifelong Learning Research Ethics Committee, and the approved ethics application with an amendment can be seen in Appendix K. Throughout the development of this study, consideration was given to ethical issues that may arise, and how these would be appropriately managed. Guidelines from the British Educational Research Association (BERA; 2018), British Psychological Society (BPS; 2021b, 2021a) and the HCPC (2016, 2023) were followed. The topic was not judged to cause any risk of harm to participants that is greater than encountered in ordinary life, as DA is often a typical part of EP practice (BERA 6, 34; BPS Code of Human Research Ethics, CoHRE 2.4; HCPC Standards of Conduct Performance and Ethics, SoCPE 6.1, 6.2). Participants were informed that if their participation in the study raised any concerns they could contact the researcher, their supervisor or the Head of Department. Throughout the study no adverse events occurred and no concerns were shared with the researcher.

The study was voluntary to participants, and fully informed consent was gained prior to participation (BERA 8, 9; BPS CoHRE 4, 4.1, 4.11; HCPC SoCPE 1.4; BPS Practice Guideline 6). The voluntary nature of the study, along with the study aims, objectives and processes were made clear on the participant information sheet, which all participants were asked to read. Participants were informed that they could withdraw their data up to the point at which data was fully anonymised for the interviews, and up to the start of the focus group (BERA 31). In addition, participant data has been kept securely and confidentially (BERA 40, 50; BPS CoHRE 5; HCPC SoCPE 5.1, 5.2; HCPC Standards of Proficiency, SoPs 6, 9; BPS Practice Guideline 7), and participants were informed of this in relation to the Data Protection Act (2018). The decision was made to have audio-recording as an essential part of the study, and participants were informed of this. Due to the nature of the research topic, this was not anticipated to be an issue, and being able to refer back to the original recording was felt to be important for a rigourous data analysis process (Willig, 2013).

It was also important to consider the dual role held by the researcher (BERA 19; HCPC SoP 2.12) as a Trainee Educational Psychologist (TEP) in the EPS where the research was being conducted. It order to minimise any ethical issues from this,

gatekeepers were used to recruit EP participants, and all correspondence was sent from a University email address. It was acknowledged that participants may feel obliged to take part as they were being asked by someone they knew. As mentioned above, the voluntary nature of the study was made clear, and invitation emails and reminders were limited. It was also anticipated that EPs would understand the voluntary nature of research and not expect any negative repercussions for not participating. The dual role held by the researcher in this process, along with further ethical considerations are discussed further in the reflective chapter.

2.4. Findings and Discussion

The first section of findings will share the contexts, mechanisms and outcomes that are hypothesised to be relevant when EPs use DA in their practice. These are reported as the themes that were developed from the first phase of data collection and subsequent thematic analysis. Developed from this, the second section of findings will share the proposed CMO hypotheses developed from the subthemes, along with the initial programme theory. Discussion around the CMO hypotheses and initial programme theory will incorporate wider theory and literature, along with feedback from the focus group. It is acknowledged that links were made to existing research and theory throughout theme development, due to the a priori template and professional and psychological knowledge of the researcher informing interpretation of the data. However, to avoid repetition discussion involving wider literature has been focused within the second section of findings.

2.4.1. Contexts, Mechanisms and Outcomes

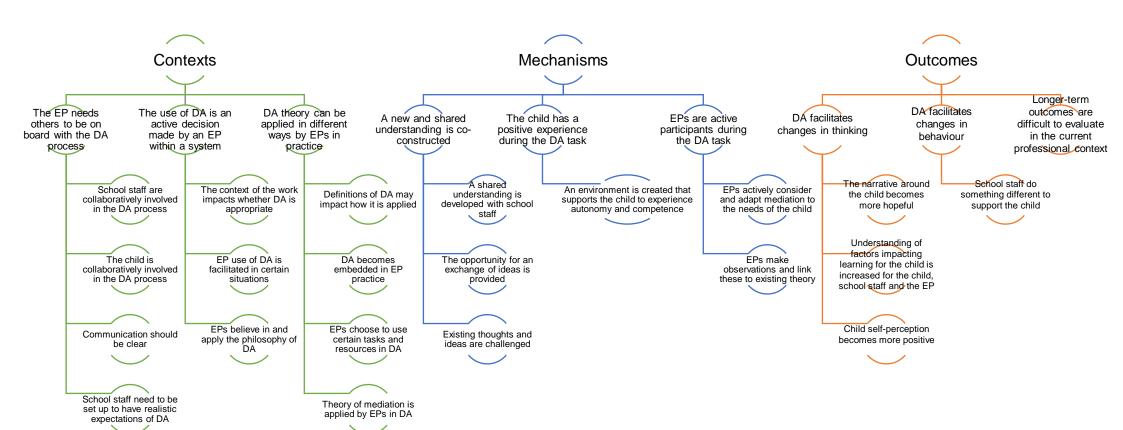
This section will use findings from the thematic analysis to explore the research questions:

- What are the contexts that occur when EPs use DA?
- What are the mechanisms that occur from these contexts when EPs use DA?
- What are the outcomes that occur from these contexts and mechanisms when EPs use DA?

A full thematic map containing themes and subthemes within the areas of contexts, mechanisms and outcomes can be seen in Figure 7. Further illustrative quotes can be found in Table L1 in Appendix L.

Figure 7

Thematic Map of All Themes and Subthemes

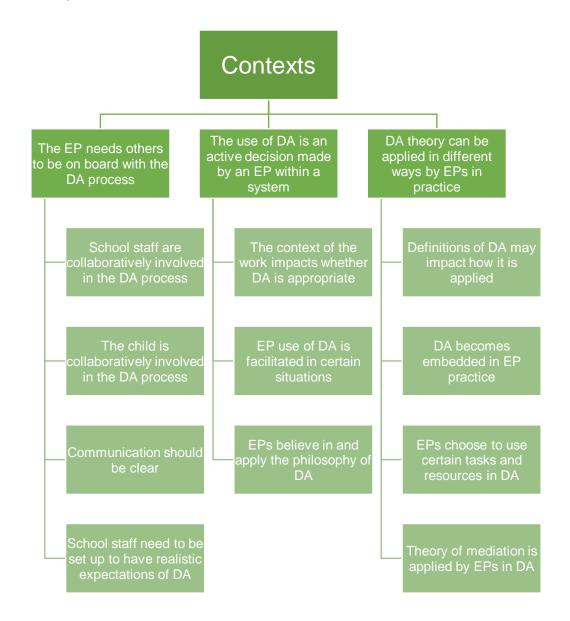


What are the Contexts That Occur When EPs Use DA?

Within the overarching theme of contexts, three themes and 11 subthemes were developed, and these can be viewed in Figure 8.

Figure 8

Thematic Map of Context Themes and Subthemes



Theme: The EP Needs Others to be on Board With the DA Process. This theme captures the idea that DA is not just carried out by the EP, and that it may be beneficial for others to be involved and active participants in the process.

Subtheme: School Staff are Collaboratively Involved in the DA Process.

This is a subtheme in which EPs explained that school staff can be involved in the

different stages of the DA process including before, during and after the task itself. Within this was the idea that DA encompasses more than just the task, and that working with school staff after the DA task can particularly support changes to be put in place.

EP6: 'I'm not so much just thinking about the dynamic assessment itself, but I'm thinking about the work before and after to plan it and support the school with future planning to crystallize it into something concrete that will happen afterwards'

School staff were also shared to be collaboratively involved in DA through observing the DA task, and this was mentioned by several participants.

EP4: 'So I did it in one of my schools where I got the SENDCo to kind of sit in, and I gave her a sheet to look through that looks at kind of different cognitive skills, so she was making notes while I was doing it'

However, several EPs reported barriers to staff being collaboratively involved in DA, particularly in terms of observing, and this was mainly perceived to be linked to staffing and whether the teacher can be released.

EP2: 'Whether or not that always happens is depending on if the teacher can leave the class'

Subtheme: The Child is Collaboratively Involved in the DA Process. This is a subtheme which refers to how EPs described working with the child during the DA task. In particular, there was reference to explicitly acknowledging the child's strengths and successes within the task, and linking this back to the child's experience of learning within the classroom.

EP6: 'If you see the child using a cognitive skill which they may not be entirely self-aware of, you can sort of pick it up and say I noticed you did this, let's think more about that'

In the quote below, the EP appears to be expressing a genuine interest and curiosity towards the child's thoughts during the DA process.

EP1: 'I try really hard to spend time checking in with the young person about whether what I'm finding gels with their experience... like this "I noticed you

really approached, that you did a lot of exploratory learning. You tried lots of things trying to figure out what the answer is that, is that normally how you do learning?" And whether they say no or yes is relevant, is meaningful to me.'

EPs also commented that they reflect with the child on successful mediation strategies towards the end of DA task, again showing curiosity towards the child's thoughts.

EP3: 'Then I think I'd definitely talking about the things that I did that I felt were helpful for them and whether they agreed, whether they agree that that was helpful, whether they notice those things'

In addition, some EPs mentioned involving the child through providing specific feedback after DA, although this was positioned as time-dependent.

EP2: 'I try if I've got time to write a letter back for the child to say what strategies were helpful and how'

Subtheme: Communication Should be Clear. This idea includes the language that EPs use when explaining the assessment and feedback to others, and suggests that being clear about assessment objectives is helpful. This clarity of communication was perceived to be important to ensure that others are able to come on board with the DA process. Within this, EPs spoke about how they might ensure that the language they use when speaking with the child is accessible and meaningful to them.

EP1: 'When I'm working with the young person, I almost always use the Lauchlan type terminology because I think it's more accessible for them... I tend to break it down and say things like, "oh, you took your time and you tried different things" you know, with them.'

In addition, clarity of communication with school staff was also mentioned.

This included the idea that it was helpful to be clear about assessment questions before DA, and that the write up can and should be succinct to support accessibility.

EP5: 'I'll talk to the school about what they want from the assessment, what they need to gain from it'

EP5: 'I think that's why it's really important to try and keep reports as short as possible because then they're read, and they can be read again'

Subtheme: School Staff Need to be Set Up to Have Realistic

Expectations of DA. This final subtheme includes how open school staff are to different assessment types, including perceptions around what an EP involvement might look like, perhaps based on prior experiences. In particular, EPs commented on how the expectation can be for EP cognitive assessment to include standardised assessment, both amongst school staff and more widely.

EP4: 'When they say "can you come and assess?" they're [school staff are] often talking about "can you come and do a standardised assessment please and give us the numbers for where they are in relation to their age."

EP3: 'So I've just had a letter... from a clinical, assistant clinical psychologist... and they said, have you done any formal assessment? What they mean is, have I done any psychometrics?'

However, participants seemed to want to challenge these assumptions, with the hope that staff could become more 'open' (EP4) to alternative types of assessment, including DA.

There was reference to a perceived preference for standardised assessment amongst school staff, and it could be that this feels more familiar to some staff with a slight apprehension about something unknown. There was also reference to others, perhaps linking to attitudes towards assessment within the wider professional context

EP6: 'Schools are sceptical sometimes, that's the thing. There are various other people who feel a lot happier if there are numbers involved.'

EPs referred to how they can set expectations for staff to understand and appreciate the purpose of DA by explaining the process to them.

EP4: 'I think it's them understanding it won't bring out these figures compared to their age and it's looking at what mediation helps, you know what strategies help them to learn and then we can think about what might be useful in the

classroom and, you know, have a collaborative problem solving around that afterwards'

Theme: The Use of DA is an Active Decision Made by the EP Within a System. This theme considers how and why EPs reported making the decision to use DA in their practice, and suggests that this is an active process within the context of the system they work in.

Subtheme: The Context of the Work Impacts Whether DA is Appropriate. This subtheme explores the factors that EPs may consider when deciding whether to use DA in a given situation. Some EPs reported using DA within different types of work, and this perhaps links to the idea of DA becoming embedded in practice which is discussed below.

EP7: 'I use it in all my statutory work... I've used it in tribunals'

For other EPs, the decision to use DA appeared to be linked more specifically to the assessment question. The following quote moves away from positioning DA as an opposite to standardised assessment, and instead suggests that they may answer different questions.

EP6: 'I don't think of it as an alternative to standardised assessment, I think it's answering different questions'

This subtheme also included some of the situations where EPs might choose to use DA, linked to their assessment question. For example, when a child's difficulties have already been identified, but there are questions around the strategies that could be put in place for support.

EP4: 'They're looking at what strategies can we put into place to support their learning, to help them make progress.'

This is perhaps linked to the perception amongst EPs that DA can be especially helpful for addressing questions around a child's approach to learning, or how they learn rather than what they already know. Again, this was linked to strategies for support.

EP5: 'It is a cognitive assessment and it is a, you know, an exploration of someone's learning needs, but it is also an exploration of how they learn,

which provides a, you know, opportunities to develop and support a young person in the future'

Another context in which DA was shared to be particularly helpful, and therefore when EPs may choose to use it, was when children have social, emotional or mental health needs that may impact their performance within a testing situation. In the below quote is the suggestion that DA is more conducive to the child engaging with the task.

EP4: 'You know, some children can come out really low on standard assessments because they're too anxious to take part. Or they're too low confidence to take part, so I would definitely use it [DA] then because I think you can get more out.'

Subtheme: EP Use of DA is Facilitated in Certain Situations. This subtheme includes both individual EP factors and systemic factors that EPs felt may or may not facilitate the use of DA within their practice, and it may be that these impact each other.

In terms of individual EP factors that may facilitate the use of DA, EPs referred to training, particularly their initial EP training as being influential in their practice decisions.

EP1: 'I trained in [training course provider] and in [training course provider], it's really embedded as part of the course, so I was doing it routinely, even as much as anything else'

It could be that this initial training, along with subsequent training in DA, supports EP confidence in DA, and this was linked to DA having less clear guidelines and therefore requiring the EP to trust themselves.

EP5: 'I think that, dynamic assessment does take some bravery, because... it's non prescriptive and so you are putting a, you have to trust yourself as a practitioner, you have to believe in yourself as a practitioner and I think as a trainee that was terrifying'

Time was also mentioned as a barrier to the use of DA, and this was linked to the wider professional context.

EP3: 'I think I'd always choose to use it if I, but I think, unfortunately, a lot of the time I'm rushing about trying to do things, I'm trying to expedite the process, huge time constraints'

EP3: 'That's the nature of EP work for us, really, unfortunately'

In terms of wider systemic factors that might impact whether EPs choose to use DA, it was suggested that sometimes processes such as resource allocation within LAs may necessitate the use of standardised assessments. This could also be linked to the wider perceptions of different assessment processes, and is a reminder that EPs are often making decisions within a wider system.

EP3: 'There are times when a few numbers on a page makes all the difference between a child getting access to the setting they need or not getting in there'

Subtheme: EPs Believe in and Apply the Philosophy of DA. This idea considers the underpinning principles and approaches drawn upon in DA, with some EPs expressing a preference to use DA in part because of these. This could be a factor in the decision making process of EPs. More generally, participants expressed an interest, preference and passion for DA, which is perhaps to be expected given the voluntary nature of recruitment within this study.

EP3: 'I've always been interested in dynamic assessment because I'm very interested in Vygotsky'

EP2: 'I just kind of fell in love with it [DA] from there and going out and using it on my second placement, just loved it'

Within this were the ideas that DA is strengths-based and the child finishes the task having 'experienced success' (EP4). This was sometimes positioned in comparison to standardised assessment, and possibly links to the environment that is created during DA and the mediation supporting the child to make progress on the task.

EP6: 'It's not just the assessment of what the child can do... and then go away and write that up. It's inherently about how does the child get better at this and how can we help the child to get better at this?'

The idea that DA looks at the potential of a child and is a holistic approach to assessment was also represented in the data. Again this was linked to mediation and the capacity of DA to explore affective factors impacting learning. This seemed to be perceived as a positive by participants.

EP4: 'It's looking at the change, the kind of potential of the children and thinking through the assessment, what kind of, what mediation's needed. I think it's a very holistic approach because it takes into account affective factors. You're looking at kind of anxiety, fear of failure, confidence, motivation, so you're looking at all those factors and how they impact as well.'

There also seemed to be a sense that EPs felt DA was perhaps more ethical than other methods of assessment. This may be another factor which contributes to EPs choosing to use DA within their work.

EP2: 'It makes me feel better about what I do, and I'm not sort of going in just adding to that negative picture sometimes'

Theme: DA Theory can be Applied in Different Ways by EPs in Practice. This theme considers the ways in which DA theory can be applied by EPs in their practice, including the idea that this can be done in different ways depending on theories more heavily drawn upon and individual practice decisions.

Subtheme: Definitions of DA May Impact How it is Applied. This subtheme encompasses how EPs acknowledged that DA can be defined in different ways, including more formally and more generally, and suggests that this may impact the way in which DA is applied in practice. This links to variety of definitions presented and discussed within the literature review chapter. The below quote illustrates the response of several participants when asked to define DA, and suggests that different forms of DA can all be helpful in certain contexts.

EP6: 'It depends on how clearly you define it... it is useful at both ends for various reasons, either at the you know the completely systematic approach where you might use something like the CATM or similar or at the much more sort of part of a holistic assessment when you're just talking to a child'

Subtheme: DA Becomes Embedded in EP Practice. This subtheme represented the idea that EPs reported applying principles from DA theory

throughout their practice, and that DA was felt to be a prominent part of their practice. This links to EPs choosing to use DA in a number of types of their work explored above, and was also linked to a wider adoption of DA principles and philosophy. Again, this appears unsurprising given the nature of recruitment in this study.

EP3: 'I think I probably incorporate elements of it in pretty much everything really'

EP1: 'I would say I do it as a default unless there's a reason not to do it'

Subtheme: EPs Choose to Use Certain Tasks and Resources. This idea refers to the different ways EPs reported applying DA theory through particular tasks and resources such as checklists, and the factors that may influence these decisions. Tasks mentioned by participants included: Complex Figure Drawing and simplified versions (Feuerstein et al., 2002); 16 Word Memory test (Feuerstein et al., 2002); Children's Conceptual and Perceptual Analogical Modifiability test (CCPAM; Tzuriel, 2002); Children's Inferential Thinking Modifiability Test (CITM; Tzuriel, 1992); Children's Analogical Thinking Modifiability Test (CATM; Tzuriel & Klein, 1985); Ravens Matrices (Raven, 2003); early years toys; and games such as Rush Hour, Dobble and dominoes. In addition, participants referred to using checklists such as the Cognitive Abilities Profile (CAP; Deutsch & Mohammed, 2008), cognitive and affective learning principles (Lauchlan, 2012; Lauchlan & Carrigan, 2013), and schedules of mediation. Some EPs described how use of checklist structured their observations during the DA task and when writing up the involvement.

EP7: 'I have started doing it, really very much taking four or five of those learning principles and... structuring my observations a little bit more in my report writing'

Within this subtheme, EPs referred to the choice of task as being important. This included linking the task choice to the assessment question and objectives, aiming for a certain level of challenge within the task, perhaps linked to the balance between success and providing mediation opportunities, considering the tasks with which the child might best engage, and choosing specific tasks to gather specific information.

EP7: 'If you pick the right task, they can be quite challenging, and you're wanting them to be challenged'

EP6: 'I will... have had a conversation beforehand about what kind of tasks they might best engage with'

EP7: 'I will have jotted down which ones [tasks] I think would meet the areas of difficulty that have been raised so, for example, memory'

Subtheme: Theory of Mediation is Applied by EPs in DA. This subtheme reflects that mediation was mentioned by participants as an important part of DA theory, and they described how this may appear in practice. Several EPs described mediation as fundamental to DA.

EP2: 'So you'd have a starting point, see what the child could do and what the child can then, how mediation would affect the outcomes for that child and the learning for that child. So for me, it's that mediation, that mediated learning experience which is a really important part or fundamental part of dynamic assessment'

This subtheme also had strong links to wider DA theory in terms of how mediation was defined by EPs and the concepts that may impact their application of mediation in practice. The following quote appears to highlight the role of EPs as applied psychologists, combining theory with practice.

EP5: 'It's facilitating learning... and looking at Vygotsky's zones of proximal development, thinking about that adult that adds something to the learning... that person who is offering support, who is making that learning more meaningful, making that learning more accessible'

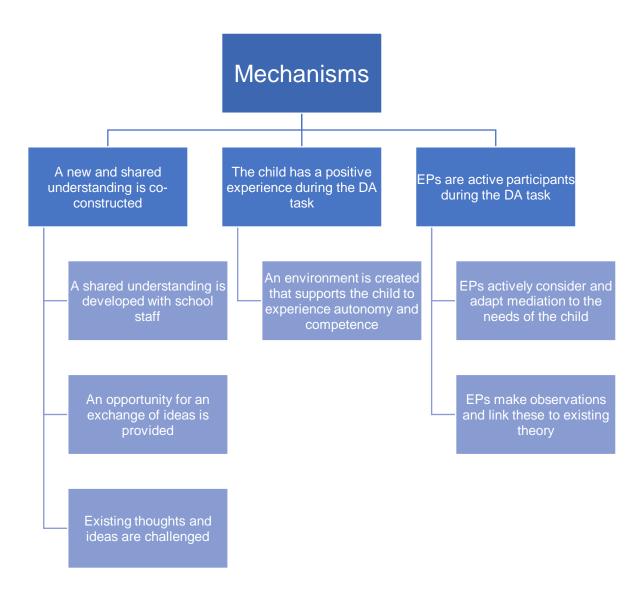
Within mediation, EPs shared that they would apply 'different levels' (EP6) of mediation depending on what was needed. Again, this links to theory around DA, and how EPs may apply it in practice.

What are the Mechanisms That Occur From These Contexts When EPs Use DA?

Within the overarching theme of mechanisms, three themes and six subthemes were developed, and these can be viewed in Figure 9.

Figure 9

Thematic Map of Mechanism Themes and Subthemes



Theme: A New and Shared Understanding is Co-Constructed. This theme suggests that co-constructing a new and shared understanding of the situation, particularly between the EP and school staff, is a mechanism that could lead to outcomes in DA.

Subtheme: A Shared Understanding is Developed With School Staff. This subtheme suggests that elements of the process may support school staff and the EP to have a shared and common understanding of the situation and DA process. This shared understanding was suggested to be facilitated by the member of staff observing the DA task, as both the EP and member of school staff experience the same thing and are therefore approaching the subsequent discussion from a similar perspective.

EP4: 'I think when you can have people just watching it, it's more of a shared understanding, I think of what's possible, so I think that is helpful.'

In addition, DA was referred to by participants as having 'ecological validity' (EP1) to classroom learning, though with limits, and perhaps therefore resonating with the member of staff and supporting a shared understanding.

EP1: 'I can talk about me helping the learner from beginning to end and that I think has a kind of resonance with the teacher...It puts you... in a certain way on the same level as the teacher or learning support assistant that you're talking to because you've then tried the same things that they're trying day in day out'

Some EPs suggested that school staff would sometimes generate their own next steps, and this was described as favourable in terms of moving towards outcomes. It could be that this is supported when school staff and the EP have developed a shared understanding, and therefore school staff feel able to contribute to the discussion as an equal partner.

EP7: 'They often come up with the ways to move forward, and that's what you're hoping all the time for them to come up with the actions to move forward'

Subtheme: The Opportunity for an Exchange of Ideas is Provided. This subtheme considers that certain circumstances may help EPs and school staff to exchange ideas, which supports a new and shared understanding to be co-constructed. Within this, EPs referred to the idea that when staff observe a DA task, it may be easier to exchange ideas as the process has been illustrated and the EP can use concrete examples to explain their thoughts.

EP6: 'It can often be difficult to feed back the results of dynamic assessment in a way that sounds specific enough. Because you're often gonna be talking in terms of motivational factors or sort of broad cognitive strategies that the child can use. So if a teacher's actually been there and seen it, it crystallizes what you mean'

In addition to this, EPs suggested that conversations, in addition to a report, can support the opportunity for an exchange of ideas between the EP and member of school staff. Again, this was linked to increasing the clarity of communication, but also to protecting and prioritising the time. One EP clearly expresses this in the quotes below.

EP1: 'The conversation can just be a way of making sure that they understand the things that you've said'

EP1: 'Having a conversation in real time, it's easier to do rather than send your report that you can skim. You can't skim a conversation. But you can very easily skim a report'

The extent to which school staff were engaged in the DA process was also linked to how open they may be to receive ideas from the EP. One EP linked this collaboration directly to outcomes of change.

EP4: 'I think that block can have a real impact on whether they're able to then take on board that formulation or take on board those strategies... I think when they're willing to engage in this process it then becomes a collaborative process and that equals change.'

Subtheme: Existing Thoughts and Ideas are Challenged. This subtheme suggests that DA can lead the school staff and EP to consider new and different ideas due to the information provided from the process being contrary to existing views. For example, some EPs shared that school staff appear to be surprised by the child's performance on a DA task, and it could be that this challenges their perception of the child's needs. This is illustrated in the following quotes.

EP7: 'They've been quite surprised by the potential of the young person'

EP2: 'Most of the time they're quite sort of "wow, they've done it"

This element of surprise was often mentioned in the context of staff observing the DA task. This was described as 'powerful' (EP7), suggesting that staff often do not get the opportunity to observe children achieving in this way.

EP7: 'So often they don't get the chance to have such an interaction or observe such an interaction or observe a young person achieving something on a novel task or etcetera. And it's so powerful to reflect on what they see.'

Some EPs also reported that DA can allow them to reframe situations and consider things in a different way. This could perhaps be linked to the underlying theory and philosophy of DA, and the below quote links DA to the psychological framework of the Constructionist Model of Informed and Reasoned Action (COMOIRA; Gameson & Rhydderch, 2016), with its focus on facilitating change, and it is interesting to consider how these are approaches that could fit well together.

EP1: 'I think my consultation vibe, I suppose is COMOIRA, and it's that enabling dialogue, and I think it really helps me reframe really difficult, stuck situations, air quotes on stuck, and it lets me see them in terms of as barriers to be overcome I suppose instead of just facts that can never change'

Theme: The Child has a Positive Experience During the DA Task. This theme represents how the experience of the child during the DA task was considered by EPs to be generally positive, and had just one more specific subtheme.

Subtheme: An Environment is Created That Supports the Child to Experience Autonomy and Competence. EPs felt that the DA task generally provided a certain environment for the child, for example making progress could lead to feelings of competence, and perhaps this is why it tends to be a positive experience.

EP2: 'Usually, dynamic assessment is positive. The child's made progress, so it's a positive experience for the child.'

Some EPs described that children are hoped to experience success and achievement during DA. This was linked to the philosophy of DA being strengths-based, and the nature of the task allowing children to perform at their best and therefore experience success and competence.

EP6: 'He had a sense of mastery over what he was doing... he knew that he was, it was improving, things had gotten better. He felt that he could do this activity effectively and fluently'

EP2: 'It's quite relaxed, and you're looking for strengths rather than them ever feeling that they're going to fail at something'

This sense of success was often accompanied by EPs describing a sense of autonomy for the child during DA, in terms of ownership and agency in the task and their progress.

EP6: 'This young person came up with all the strategies himself, I just provided him with the opportunity to use them'

The use of mediation by EPs was linked to creating an environment where children could experience feelings of autonomy and competence, because it facilitates progress in the task.

EP5: 'Providing that mediation for them allows them to make progress'

One EP also described how their mediation may involve mediating feelings of competency for the child to support with their confidence, and that this in itself might support the child to make progress.

EP4: 'Using it for children who are kind of low confidence, I often find I'm mediating feelings of competency, so I think it's, you hope it is a kind of positive experience for them because you are, you're helping them to succeed, they always should be succeeding in it if you're doing the right job doing the mediation, if that makes sense'

On the contrary, one EP described when a child may have a less positive experience during DA, however this was suggested to be linked to the children attributing their success to the actions of the EP, therefore perhaps not experiencing feelings of autonomy or competence.

EP5: 'You want them to come away with a sense of accomplishment and if they don't come away with that sense, that, you know, can tell you a lot, because the young person might have actually done really well, but they still

didn't feel like they did very well because they attributed their success to whatever I did'

Theme: EPs are Active Participants During the DA Task. This is a mechanism theme which suggests that EPs are active participants in their interaction with the child during the DA task, including considering how EPs may have certain thought process, make decisions and respond to what is happening.

Subtheme: EPs Actively Consider and Adapt Mediation to the Needs of the Child. This subtheme includes EPs considering the mediation that is required, the impact of the mediation and what successful mediation looks like for that child, whilst ensuring that the needs of the child are being met during that interaction. This links to the experience of the child.

EP6: 'I'm concerned to create a situation in which they can engage with the work as effectively as possible'

EPs described some of the thought processes they may have during a DA task. The quote below captures how the EP is actively considering the impact of their mediation and what else might be needed to support the child's achievement in the task.

EP4: 'Thinking about the level of mediation that's needed, so, we start going through the through the different tasks and thinking how much support do they need. Can they, with a little bit of input, can they then sort of get on quite well? Do they need the level of mediation?'

Another strand of this subtheme was the idea that EPs have a lot to think about during a DA task, as they try to mediate and ensure this is matched to the needs of the child.

EP4: 'I think there's a lot to think about with dynamic assessment, it's quite, as an EP, it's quite a working memory task'

Subtheme: EPs Make Observations and Link These to Existing Theory. This subtheme refers to EPs observing how a child may act and respond to the DA task and to them as an interaction partner, and noticing both affective and cognitive factors within this.

EP3: 'Those are probably the main things I'm doing, in seeing how what I do impacts the way they respond and so on. And if I then change it a little bit, does that alter the way they appear in the room? And so it's kind of social emotional as well as cognitive performance'

This was also linked to existing theory, for example around cognitive and affective factors that may be important in learning, and this sometimes linked to resources, such as checklists, that EPs may choose to use in DA. The following quote suggests that EPs may draw on theory by Feuerstein, whose work is highly influential in DA theory.

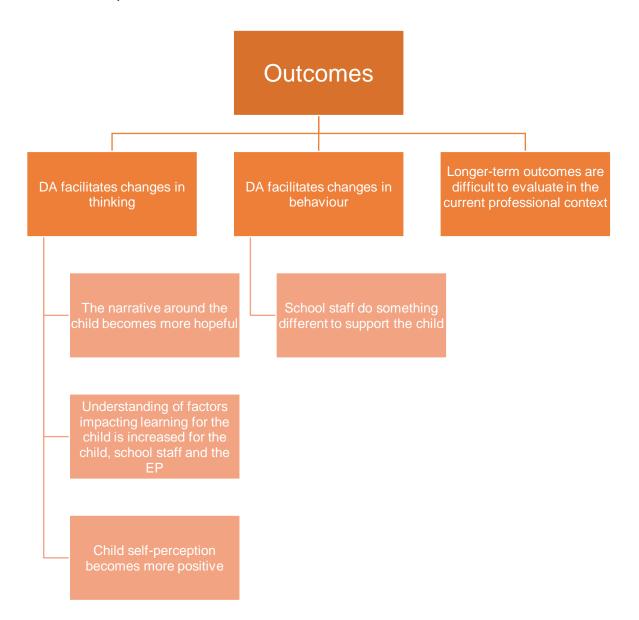
EP2: 'The mediated learning and the Feuerstein stuff and that kind of models my thinking as well. What elements of that were really important and was it the relationship? Was it the visuals? What element of it helped scaffold?'

What are the Outcomes That Occur From These Contexts and Mechanisms When EPs Use DA?

Within the overarching theme of outcomes, three themes and four subthemes were developed, and these can be viewed in Figure 10.

Figure 10

Thematic Map of Outcome Themes and Subthemes



Theme: DA Facilitates Changes in Thinking. This theme suggests that DA can facilitate changes in thinking, and implies that this can be an outcome in itself as well as leading to changes in behaviour, considered within the theme below.

Subtheme: The Narrative Around the Child Becomes More Hopeful. This subtheme refers to the perception of the child and their needs changing as a result of the DA, and increasing feelings of hope, including school staff adopting a more optimistic view of the child and their potential to make progress in their learning. This was sometimes positioned in contrast to the narrative perceived as being created from a standardised assessment, which perhaps may be more restricting when thinking about how to support the child.

EP1: 'I think this is a really key part of dynamic assessment in a way that creates enabling alternative narratives as opposed to just this child is low and what can you do with that'

EP5: 'For me, that longer term would be about creating a narrative of this child, and the narrative is with the right support they can make progress... and if you develop that narrative rather than they're extremely low, they're below average, whatever it might be, you're not creating that narrative that they are. So I, I guess it comes down to hope for that longer term outcome.'

This change in narrative was linked to DA recognising the strengths of the child, which relates to the philosophy of DA and approaches typically used. This could also be linked to feelings of hope.

EP1: 'It enables that kind of focus on what's good and what strength can we build on rather than what barriers do you have to overcome'

Subtheme: Child Self-Perception Becomes More Positive. This subtheme refers to completing the DA task having a positive impact on how the child feels about themselves. This was generally mentioned in the context of immediately after completing the task, as this is perhaps where EPs are best placed to comment. One participant shared an example of a recent DA experience, and from this it could be inferred that the child felt more confident and positive immediately after the DA task.

EP7: 'Actually he responded really enthusiastically, and to go from a session with me, like with a leap, a real leap in his step... He actually moved his face on the zones of regulation onto the green, onto the positive green, and then went straight on into an activity.'

This subtheme also included the idea that the DA task can be an 'intervention in itself (EP2), and perhaps even 'therapeutic' in the way that it can change the child's perception of themselves. This was linked to the progress and success that the child may experience within the DA task. The use of the word 'shifting' could also link to shifting narratives and trajectories. These ideas were clearly articulated by one participant.

EP2: 'I think the dynamic assessment process itself is quite therapeutic, is, can be quite shifting, sometimes, when you've worked with the child and they feel better about themselves, they feel that they can do it'

Subtheme: Understanding of Factors Impacting Learning for the Child is Increased for the Child, School Staff and EP. This subtheme considered how DA may support understanding of factors impacting learning for the child for different people. Within this was consideration of EP formulation, and how DA allows exploration of a number of factors impacting a child's learning. In particular, the following quote emphasises the importance of affective factors in learning, suggesting that perhaps a greater understanding of the child's learning is gained by exploring these factors.

EP4: 'I think it's helpful in formulation because it's quite a holistic approach, so you're not looking at just cognition, you're looking at cognition and affective factors as well, which is so important in learning.'

Within this subtheme, there also appeared to be an emphasis on DA increasing understanding of learning processes and *how* a child learns, compared to *what* they know, and this was discussed in relation to the child and school staff.

EP2: 'It may hopefully give the child a bit of insight to how they learn and how they approach tasks'

EP6: 'It's been helpful in helping the school to understand how those children learned most effectively'

There was also the idea that DA leads to new information. This was compared with standardised assessment, which was described as providing information that may already be known.

EP2: 'I think it does give you a lot of information that they don't already know'

EP7: 'Often if you were doing more standardised assessments, you're just telling them, in my opinion, you're just telling them what they already know, if you have a good consultation with them.'

Furthermore, a number of participants suggested that DA always resulted in useful information, regardless of what happened during the assessment. One participant described an example of a child not engaging in the task, but this still providing helpful and useful information.

EP2: 'Even the fact that he wouldn't engage with me as an unfamiliar tells, is kind of the dynamic assessment anyway, because you've got a lot from that lack of engagement, the fact that he moved away from me, turned away from me.'

Theme: DA Facilitates Changes in Behaviour. This theme contained just one more specific subtheme around how school staff may change their behaviour as a result of DA.

Subtheme: School Staff do Something Different to Support the Child.

This captures the idea that DA may facilitate more concrete outcomes as a result of the changes in thinking. For example, school staff may change the focus of the intervention once a greater understanding of the needs has been reached or the narrative has changed, with the subsequent intervention then better addressing the child's needs. The following quote illustrates a perceived link between thinking and behaviour.

EP4: 'Once they [school staff] understand that child in a different way, they can kind of respond to them in a different way in the classroom.'

It was also suggested that the information gained from DA could be implemented within the classroom, for example the successful mediation strategies, and therefore through DA next steps for support are made clear.

EP7: 'It seems more straightforward to think about moving forward, thinking about actions using dynamic assessment... Because you're saying "this is

what he/she responded to, this is what she/he, found more difficult, but if we did this, could you replicate that?" You know, there are already, they're there for you, almost in thinking about how they could be supported in class.'

In addition, there was reference to DA developing the practice of school staff beyond the focus child, through the sharing of psychological concepts. In the quote below, this is presented as a hoped-for outcome, and would link to the idea that EPs can perhaps have a greater impact through sharing psychology and developing the practice of school staff more widely.

EP1: 'It's also the promoting really big ideas in psychology, I think that's a part of what you're doing, and trying to share that good practice that would hopefully develop the teacher's overall practice as an instructor, as a mediator, I suppose.'

Theme: Longer-term Outcomes are Difficult to Evaluate in the Current Professional Context. This final outcome theme highlights the current difficulties shared by participants with evaluating longer-term outcomes from DA. This was shared by the majority of participants when asked for their perceptions of the longer-term outcomes of DA.

EP4: 'I think sometimes it's hard to see, sometimes the outcomes, because I think it's, yeah, I don't always have that over time'

In addition, it was suggested that difficulty in evaluating outcomes of DA could be linked to wider issues within the current professional context, meaning that EP involvements often have limited timescales and therefore follow-up opportunities are reduced. Within this there appeared to be a wider frustration with how the current system may be impacting ways of working. The quote below also suggests a difficulty in evaluating outcomes based on the perceptions of others, who may or may not share their true thoughts, and a difference between perception and longer-term change linked to EP work more generally.

EP1: 'I think one of the really, really difficult things about being an EP is that there's such a poor feedback mechanism just built into the job. People will say at the end of a consultation "Yeah, that was great, that was great". You don't know that they thought it was great, you don't know, or even if they did think it

was great, you don't know in 10 weeks time will you have made a difference? It's really difficult to get that information.'

2.4.2. What are the Contexts and Mechanisms That Contribute Towards EP Use of DA Having Positive Outcomes?

Initial Programme Theory

This section will explore the research question:

What are the contexts and mechanisms that contribute towards EP use of DA having positive outcomes?

From the subthemes developed during the thematic analysis, CMO hypotheses have been created. All hypotheses can be seen in Table I2 in Appendix I, and they are also presented and discussed below. More detail has been added from subthemes where this was felt to increase practical relevance, and where multiple CMOs are linked the hypotheses have been structured according context involved. This part of the analysis is based on findings from the thematic analysis, along with the researcher's practical and theoretical knowledge. At this stage, hypotheses are not intended to demonstrate causality, but rather hypothesise about some of the potential links between the different CMO elements suggested by EPs to be important in DA. The majority of examples and discussion during the interviews related to the contexts and mechanisms that lead to *positive* outcomes from DA, therefore these were primarily represented within the developed themes and subsequent hypotheses.

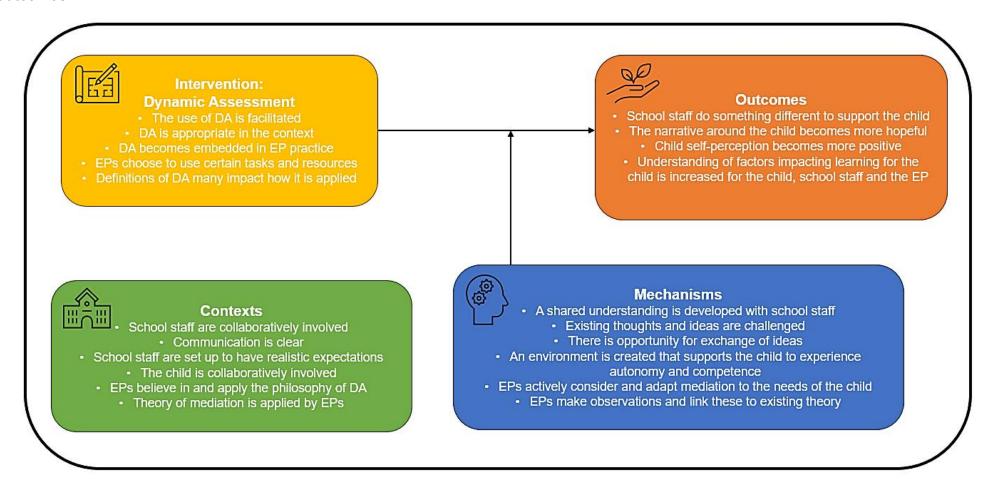
From the CMO hypotheses, a graphic was developed to represent the initial programme theory, inspired by Nguyen et al. (2022). This is shown in Figure 11, and was shared with the participants during the focus group. At this stage in the analysis process, a further distinction was made between context, and intervention. Some realist evaluation literature suggests that the elements of **intervention** and **actors** can be added to the CMO configuration (Marchal et al., 2018). The intervention includes a combination of programme elements or strategies, specifically those designed to produce changes, while actors refers to the individuals, groups and institutions that contribute to the implementation and the outcomes of an intervention (Mukumbang et al., 2020; Nguyen et al., 2022). In the current study, the term **intervention** was used to describe themes that related to the nature and wider

circumstances of the intervention (DA). For example, these were themes that related to how EPs carried out DA more generally, or whether EPs carried out DA in the first place. These therefore did not appear to link to specific mechanisms or outcomes within the CMO hypotheses and initial programme theory. Although actors have not been explicitly identified within the initial programme theory, many of the themes relate primarily to either school staff, the child or the EP, and the CMO hypotheses have been structured in this way.

Figure 11

Visual Representation of the Initial Programme Theory for the Contexts and Mechanisms That Contribute to EP use of DA Having Positive

Outcomes



Initial Programme Theory

CMO Hypotheses and Discussion

General feedback from the focus group about the initial programme theory seemed positive. This is encouraging, and suggests that the analysis and interpretation of the interview data aligns with the experiences of these EPs. It could also suggest that the initial programme theory has practical relevance and may be useful in EP practice.

FG EP4: 'I think looking at that it kind of rings true... it feels like it sits with my kind of thinking around things... like you've drawn out some really key bits there that feel like it fits with how things are in a best case scenario'

EP participants in the focus group expressed that the outcomes section of the initial programme theory particularly resonated with their experiences.

FG EP5: 'I think I was initially quite drawn to the outcomes because I think they really do kind of capture what I hope dynamic assessment does achieve'

FG EP4: 'Definitely thinking about some previous examples I've done, I think that it does hit some of those outcomes definitely'

The CMO hypotheses will now be presented and discussed, both in relation to the focus group feedback and wider theory and literature. The discussion has been structured by the main stakeholder group involved: school staff, children and the EP, followed by discussion of the intervention factors.

School Staff.

Table 6

CMO Hypotheses Involving School Staff

Refer ence	Context	Outcomes	Mechanisms
1a	When school staff are collaboratively involved in the DA process, including observing the DA task and having conversations with the EP before and after the task	Then the narrative around the child from the perspective of school staff becomes more hopeful	This is because existing thoughts and ideas relating to the child have been challenged.
1b	When school staff are collaboratively involved in the DA process, including observing the DA task and having conversations with the EP before and after the task	Then school staff increase their understanding of factors impacting learning for the child And school staff do something different to support the child including adapting interventions to include successful mediation strategies	This is because the opportunity for the exchange of ideas between the EP and the member of school staff has been provided And a shared understanding of what helps to support the child has been developed between the EP and school staff.
1c	When communication between school staff and EPs around DA is clear	Then school staff increase their understanding of factors impacting learning for the child	This is because the opportunity for the exchange of ideas between the EP and the member of school staff has been provided.
1d	When school staff are set up to have realistic expectations of DA, including being open to DA as a method of cognitive assessment	Then school staff understanding of factors impacting learning for the child is increased And school staff do something different to support the child	This is because school staff are open to engaging in an exchange of ideas with the EP And a shared understanding of what helps to support the child has been developed between the EP and school staff.

The CMO hypotheses in Table 6 suggest that when school staff are collaboratively involved in the DA process, including through observation and discussion, when communication is clear, and they have been set up to have realistic expectations of DA, they may increase their understanding of factors impacting learning for the child, the narrative around the child becomes more hopeful and they may do something different to support the child in terms of adapting interventions to meet the child's needs. These outcomes may occur in these contexts because there has been the opportunity for an exchange of ideas, existing thoughts and ideas have been challenged, and a shared understanding of what helps to support the child has been developed between school staff and the EP.

Hypotheses 1a and 1b both link to the mechanisms and outcomes that may occur when school staff are collaboratively involved in the DA process. In the focus group, EPs spoke about the ways they have involved school staff and how this may link to collaborative working.

FG EP4: 'Sometimes I've had staff observe dynamic assessment, make notes during it, so they're very much involved in the dynamic assessment, I think that then sets up for more collaboration afterwards'

Involvement of adults through observing the DA task is advocated in Stacey's (2017) best practice DA system, and it is suggested that this can challenge beliefs about the child and model a mediational teaching style, as in hypotheses 1a and 1b. The majority of EPs involved in Stacey's study also shared that they felt teachers should be involved in the DA process, as they did in the current study, along with considering why this may be important.

This also links with the idea that DA has an ecological validity which supports a shared understanding and perhaps a generalisation of strategies into the classroom. This may be rooted in the theoretical underpinnings of DA, with Vygotsky emphasising the importance of social interaction in development of cognition (Poehner, 2008), and this is how learning generally takes place in the classroom. This would contrast with standardised assessment, where help is not offered and therefore may focus more on individual rather than social learning.

During the focus group, staff observing DA was described as being important in developing a shared understanding and ideas being exchanged more easily, as in hypothesis 1b.

FG EP6: 'That point about having the shared understanding of what you're doing with the school staff and them being on board with it, I think it's very important. I mean, it's one of those things where sometimes if you read a dynamic assessment report and the recommendations for teaching strategies and mediations, it can sound a bit general. If someone's been well with you, they know exactly what you mean, and there'll be quite clear examples'

Landor et al. (2007) used video footage of the DA task with parents and teachers, which may serve a similar purpose to observation. This was also linked to Video Interaction Guidance, which the authors suggest is closely related to DA in terms of theoretical underpinnings, and objectives of the approaches appear to be similar. Use of video alongside DA in this study was reported to be a positive experience, hypothesised to be linked to adults being able to observe the mediation and the positive impact on the child, and balancing the power dynamic as individual judgements could be made. This is similar to the mechanisms developed from EP views in the current study, for example in hypotheses 1a and 1b.

As suggested in hypotheses 1a and 1b, the majority of EPs in Stacey's (2017) study expressed that they would hold a consultation or joint problem-solving session following DA. Yeomans (2008) links the collaboration between the EP and school staff during DA, including sharing common goals, and negotiating concerns and expected outcomes, to literature on EP consultation (Wagner, 2000), and this could particularly link to hypothesis 1b.

Within literature on EP consultation, Bruce (2021) has explored the process of perspective change, and suggested that consultee openness to change and the EP supporting new thinking by challenging narratives were examples of important factors within this. In addition, Nolan and Moreland (2014) found that during consultation EPs used discursive strategies including directed collaboration, challenging, reformulating and explaining. Findings from both these studies show similarity to the current study in terms of the mechanisms that may be occurring when school staff are involved in the DA process, for example in hypotheses 1a and

1b. It is interesting to consider the extent to which these mechanisms may occur as a result of DA, and which may be linked more specifically to the consultation element. Deutsch (2017) explored the use of the CAP as a consultation tool with teachers. Several positive outcomes were shared, including improvements to children's cognitive and approach to learning skills. However, a number of benefits were also perceived regardless of the consultation approach used, which suggests that consultation and associated mechanisms may play an important part in leading to outcomes within DA.

This could link to the description of DA as a 'complex social phenomenon consisting of not only the assessment itself but also preparation and follow up with schools' (Stacey, 2017, p. 4), and the view that consultation should form a distinct part of the DA process (Lauchlan & Carrigan, 2013; Lidz, 2014; Lidz & Haywood, 2014). The current study has developed this understanding of DA as a series of processes, and begun to consider the extent to which DA and consultation may overlap in terms of important contexts, mechanisms and outcomes.

The idea from the current study that school staff may come up with their own next steps also links to literature on consultation as being part of DA, with Lidz (2014) suggesting that consultation can support others to accept recommendations, and increases confidence and competence to deliver them. These feelings of competence from school staff may be part of the mechanism that links the context of involving school staff in DA with the outcome of them doing something different to support the child (hypothesis 1b), and this would be interesting to explore further. Gutkin (1999) conceptualises a model of consultation based on the continua of collaboration and directiveness, and it could be that consultation within DA can be less directive, along with being more collaborative.

Hypothesis 1d suggests setting realistic expectations for DA may also be linked to the mechanisms of creating a shared understanding and exchanging ideas. When DA has not been set up, school staff may block the new ideas, and collaboration is reduced, illustrated in the following focus group quote.

FG EP4: 'I think it's really important to set that context up, so it opens up people to have that collaborative discussion with the information rather than

them just being like, "well, I wanted some numbers actually. And you haven't given me any numbers."

Openness to change from school staff was shared as a factor which impacted change during DA by EPs in Stacey's (2017) study, and this could be linked to perspectives of assessment. A study by Ashton and Roberts (2006) suggested that Special Educational Needs and Disabilities Co-Ordinators (SENDCos) valued more traditional EP roles including individual assessment, compared to a more consultative or interactionist approach. However, Freeman and Miller (2001) found that SENDCos did rate DA information as more useful that norm-referenced assessment information, although less familiar. As data suggests that DA is being increasingly used by EPs (Atkinson et al., 2022), school staff may have become more familiar with DA. It would be interesting to see if this has changed general perspectives and openness to the approach.

EPs in the focus group commented on the mechanism of challenging existing thoughts and ideas, and how DA may change the narrative around a child (hypothesis 1a).

FG EP6: 'In a good dynamic assessment setting children are going to do things that maybe you didn't realise they could, or maybe none of their teachers realised they could'

FG EP7: 'I like those words hopeful, positive, you know, moving forward, whereas I see standardised assessments as very closed and you're clarifying what they know already'

It therefore seems that the wording of these subthemes aligns with their values and how they perceive DA. Similarly, Marshall (2021) interviewed EPs about involving children in EP consultation meetings and developed 'changing attitudes' as a subtheme, with EPs sharing the view that involving children in consultation meetings could challenge adults' beliefs and constructs. This again suggests some overlap between the mechanisms and outcomes involved in consultation and DA.

Previous literature on DA has suggested that it may lead to a change in narrative around the child, including the teacher shifting their view of the issue to consider the child's environment and their role within this, and a more optimistic view

of the child and their future (Lawrence & Cahill, 2014). Billington (2006) highlights the narrative that can be created when working with children, and Stanbridge and Mercer (2019) explain how language and perception of a child's needs may impact the response given. This could link to attribution theory, which considers how information is used to form causal judgements for events (Fiske & Taylor, 1991). Research has suggested that when teachers change their attributions to student behaviour and increase their awareness of ecosystemic factors, they may respond in a more considered and measured way (Ruttledge, 2022). The current study suggests that challenging existing school staff attributions around why children might be finding learning difficult through DA may impact their actions.

EPs in the focus group spoke about considering their write up of DA to ensure it was clear and helpful to those who receive it (hypothesis 1c). This was described as a challenge by several EPs, and something they would like to improve.

FG EP6: 'It's harder to be concise because there's so much to describe'

This links to Green and Birch's (2019) suggestion that skills in summarising results verbally and in writing should be part of a DA competency framework. Yeomans (2008) additionally describes that using language accessible and familiar to school staff may support the link between assessment and intervention in DA, linking to hypothesis 1c. In terms of EP reports more generally, accessibility is a core principle within guidance on statutory advice (Joint Professional Liaison Group, 2020). It has also been suggested that complex language and jargon are unhelpful to school staff and parents, and stakeholders have reported that they only value assessment results if they are presented and interpreted in an accessible way (James, 2019). Cameron (2006, p. 292) describes how supporting the link between complex real world problems and recommended actions based on psychological theory and research can be challenging, and requires 'considerable creativity and high level communication skills' from the EP. The idea that conversations can support clear communication and opportunity for the exchange of ideas was also reported in a recent workforce report, in terms of EPs speaking with school staff during a visit being an immediate method of feedback, instead of having to wait for a report (Atfield et al., 2023). The current study uses developing theory to reiterate

these ideas and consider why clarity of communication may be especially important in DA.

Hypotheses 1b and 1d suggest a link between increasing understanding of learning processes and supporting the child in a way that meets their needs. In a case study, Stacey (2017) found that DA impacted upon the beliefs of the SENDCo and their approach to working with the child. This is often perceived as a strength of DA over other methods of assessment, and is reported within the literature on DA, for example Deutsch and Reynolds (2000) reported that 51% of EPs surveyed felt that DA provided practical advice and next steps to teachers and parents. Teachers have also expressed that information from DA was valuable and relevant, providing useful recommendations (Lauchlan, 1999). One EP in the focus group gave an example from their practice where they explained how through increasing understanding of factors impacting learning, this had led to a change in intervention approach, as in hypothesis 1b. This illustrates the potential links between several of the outcomes included within the initial programme theory.

FG EP4: '[We] did some dynamic assessment, and actually he performed really well, could problem solve really well, do lots of things. We talked to the SENDCo about actually his high anxiety is like the key barrier to learning, not the learning and that really kind of shifted for them their approach with him in supporting that rather than the learning'

The idea that EPs can use principles of DA to develop teacher practice and understanding more generally is included within hypotheses 1b and 1d, and this can be found in the broader discussion around EP practice. For example the idea of 'giving psychology away' (Banyard & Hulme, 2015; Miller, 1969), along with Cameron (2006) suggesting that a distinctive contribution of the EP can include promoting psychological ideas underpinned by theory and research that can allow others to create positive change. Furthermore, Forrest (2019) explored mechanisms impacting teacher practice change, and suggested that collaboration, reflection and knowledge of positive outcomes were important. This could link to the mechanisms in the current study, and awareness of possible outcomes from DA is hoped to be increased by research in this area.

Children.

Table 7

CMO Hypotheses Involving Children

Refer	Context	Outcomes	Mechanisms
ence			
2a	When the child is collaboratively involved in the DA process, including the EP preparing them for the task, building rapport and involving them in reflection on their observations	Then the self- perception of the child becomes more positive	This is because an environment has been created that supports the child to experience autonomy and competence, and DA is a positive experience for the child.
2b	When the child is collaboratively involved in the DA process, including the EP involving them in reflections and observations, bridging between the task and the class and providing written feedback	Then the child's understanding of their learning is increased	This is because an environment has been created that supports the child to experience autonomy and competence.

The CMO hypotheses in Table 7 suggest that when the child is collaboratively involved in the DA process, their understanding of their learning may increase and their self-perception may become more positive. This may be because an environment has been created that supports the child to experience autonomy and competence and DA is generally a positive experience for the child.

EPs in the focus group spoke about children being involved in the DA process.

FG EP7: 'It definitely feels an approach where you're [EP and the child are] in it together, that's joint'

FG EP7: 'Children tend to be on board'

This links to hypotheses 2a and 2b, and could be seen as an extension of the EP role more generally to gather child views and use person-centred approaches (British Psychological Society, 2015). It has been advocated that children should be specifically involved in the follow up to DA (Lauchlan & Carrigan, 2013), and it has been suggested that this could be done using approaches from Video Interaction

Guidance (Landor et al., 2007). This study begins to suggest why it may be important for children to be involved, and how this might lead to positive outcomes.

EPs in the focus group commented on the mechanism within hypotheses 2a and 2b, suggesting that this subtheme particularly aligns with EP perceptions of DA.

FG EP4: 'I think the mechanisms one, an environment is created that supports the child to experience autonomy and competence, I think that's a really nice line, I think that is what you aim for in dynamic assessment'.

The idea that DA is a positive experience for the child and this linking to experiencing success and competence has been referred to within DA literature (Wills, 2008; Yeomans, 2008), and the current study conceptualises this as an important mechanism in DA.

The concepts of autonomy and competence can also be found within selfdetermination theory, along with relatedness (Deci & Ryan, 2008; Ryan & Deci, 2020). These factors are suggested to be important in motivation and wellbeing, and can be facilitated by certain environmental conditions, for example experiencing a sense of ownership and initiative in one's actions and being exposed to optimal challenges, positive feedback and opportunities for growth. Applying the philosophy of DA, for example being strengths-based and ending on success, may provide a context where these environmental conditions can be achieved. Although in a different context to EP use of DA, Azizi and Farid Khafaga (2023) suggest that a group DA task with second language learners may create a successful learning environment and fulfil needs such as competence, autonomy and relatedness, and that learning anxiety and willingness to communicate may have been positively impacted for students. Findings from the current study would suggest that EPs perceive this to be the case when they use DA. In addition, Marshall (2021) found that child autonomy may be an important factor in involvement in consultation meetings, and they hypothesise around how this may subsequently impact the child's motivation to make changes. Within the current study, DA was suggested to be an intervention in itself, almost conceptualising this mechanism as an outcome. A similar idea is suggested by Marshall (2021), where involving children in consultation was perceived to be an intervention in itself through supporting the child's agency

and empowerment. This appears to particularly link to hypothesis 2a, and could be a helpful way in which DA could be understood.

It is suggested in hypothesis 2b that involving the child to create an environment where they can experience autonomy and competence can lead to positive outcomes for the child, in terms of their understanding of their learning and their self-perception. This could link to the child's metacognitive skills, and research has suggested that DA tasks may be linked to development of metacognitive awareness, possibly due to the feedback offered supporting learners to plan, monitor and evaluate their learning (Rezai et al., 2023). Hypothesis 2a suggests that this same mechanism may also support the child to develop a more positive self-perception. Attribution theory may be relevant here, particularly the concept of locus of control (Rotter, 1966), which is the extent to which a person believes an outcome is dependent on factors which are internal or external to them. Literature has linked an internal locus of control to increased self-esteem (Saadat et al., 2012). In the current study, it was suggested that feelings of autonomy and competence may be less likely to occur for the child when they attribute their success to the actions of the EP, and it could therefore be that locus of control is influential within this hypothesis.

As in hypotheses 2a and 2b, previous research on EP use of DA has also suggested that DA can lead to improvement in the child's understanding of teaching and learning strategies (Landor et al., 2007). In addition, Lawerence and Cahill (2014) suggest that DA positively impacts on a child in a number of ways, including their self-perceptions, self-esteem and self-belief in learning situations, providing more direct empirical support to the perceptions of EPs within the current study in terms of outcomes for the child. The current study therefore suggests that the perceptions of EPs align with previous research, alongside hypothesising about associated contexts and mechanisms.

EP.

Table 8

CMO Hypotheses Involving the EP

Refer ence	Context	Outcomes	Mechanisms
3a	When EPs believe in and apply the philosophy of DA, including being strengthsbased, ending on success and looking at potential of the child	Then child self-perception becomes more positive	This is because EPs actively consider and adapt mediation to the needs of the child during the DA task And an environment has been created that supports the child to experience autonomy and competence.
3b	When EPs use mediation in DA by applying different types and definitions of mediation	Then the self-perception of the child becomes more positive And the narrative around the child becomes more hopeful	This is because EPs actively consider and adapt mediation to the needs of the child during the DA task And an environment has been created that supports the child to experience autonomy and competence.
3c	When EPs use mediation in DA by applying different types and definitions of mediation	Then EP understanding and formulation of factors impacting learning for the child is developed	This is because the EP has actively considered and adapted mediation to the needs of the child during the task, including the mediation needed, impact of the mediation and what constituted successful mediation.
3d	When EPs choose to use certain tasks and resources in DA, including using checklists and linking the task choice to the assessment question	Then EP understanding and formulation of factors of factors impacting learning for the child is developed	This is because EPs have made observations and linked these to existing theory during the DA task.

Refer	Context	Outcomes	Mechanisms
ence			
3e	When EPs choose to use certain tasks and resources in DA including linking the task choice to the assessment question and the appropriate level of challenge for the child	The narrative around the child becomes more hopeful And understanding of factors impacting learning for the child is increased And the self-perception of the child becomes more positive	This is because EPs actively consider and adapt mediation to the needs of the child during the DA task And an environment has been created that supports the child to experience autonomy and competence.

The CMO hypotheses in Table 8 suggest that within DA, EPs choose certain tasks and resources depending on the assessment question and the appropriate level of challenge for the child, apply different types of mediation, and believe in and apply the philosophy of DA, for example being strengths-based, ending on success and looking at the potential of the child. These are suggested to lead to outcomes including understanding and formulation of factors impacting learning for the child being developed, the narrative around the child becoming more hopeful, and the child self-perception becoming more positive. This is again linked to the mechanism of creating an environment to support the child to experience autonomy and competence, but also the EP making observations and linking these to existing theory, and actively considering and adapting mediation to the needs of the child, including the mediation needed, impact of the mediation and what constituted successful mediation.

In terms of EPs choosing certain tasks for DA, as in hypotheses 3d and 3e, tasks reported in the current study show similarities to those reported by EPs in Stacey's (2017) study, with slight differences that could be linked to individual training, preferences and resources within services. Choice of task in the current study is also suggested to be linked to outcomes in the way that EPs choose certain tasks and resources linked to the assessment question and providing the appropriate level of challenge for the child. This could relate to how EPs develop and test hypotheses (Frederickson & Cameron, 1999), so they may be selecting assessment tools which best explore their hypotheses.

EPs in the focus group commented on the idea that EPs actively consider and adapt mediation to the needs of the child during the DA task, as in hypotheses 3a, 3b, 3c and 3e. The following quote appears to link the actions of the EP with creating an environment that supports the child to experience autonomy and competence.

FG EP5: 'You're both actively together, working in a space and creating that space is important for them to feel safe and comfortable'

EP mediation could allow the child to experience errorless learning, where errors are reduced as much as possible when learning new skills (Scheper et al., 2019). This may support the child to succeed and experience competence, subsequently impacting their self-perception (hypotheses 3a, 3b and 3e). The way that EPs consider what constitutes successful mediation (hypothesis 3c) may link to principles of solution-oriented psychology, such as focusing on exceptions to the problem and doing more of what works (Harker et al., 2016). Furthermore, this subtheme links to Feuerstein's construct of MLE, emphasising the importance of intentionality, reciprocity, and shared meaning within mediation (Yeomans, 2008). Green and Birch (2019), developed a competency framework for EP use of DA, which includes knowledge of mediation theory and skills in applying this in practice. The current study develops this by indicating that EPs are actively aware of their application of mediation theory during the DA task, and suggesting mechanisms for how this may lead to positive outcomes.

Hypotheses 3b and 3e suggest that the actions of the EP during DA may lead the narrative around the child to become more hopeful. This could be linked to hope theory (Snyder, 2000), where it is suggested that hope is related to optimism, feelings of control and motivation towards achieving goals. This appears to fit well with self-determination theory, discussed above. It has been suggested that the theoretical concept of hope could guide the future of the EP profession, positioning EPs as 'ethical facilitators of empowering, hopeful practice in schools... agents of hope' (Cox & Lumsdon, 2020, p. 22). Therefore, hope theory could be an interesting lens through which to view some of the processes involved in EP use of DA.

EPs in the focus group discussed how using checklists to structure observations could support with linking observations to theory within the DA task, particularly as DA was reiterated as having a high working memory load for EPs, and

this could link to hypothesis 3d. This is also suggested by Poehner (2011), who describes how the mediator must remain attuned to learner needs throughout the DA task, which creates a demand, and it could be that checklists help to reduce this demand.

FG EP4: 'So I think dynamic assessment is a huge working memory load. There's so much you're holding on to... I think sometimes having that list, in fact, I sometimes take, you know, having it with you when you're doing it does help to hold something else, like next to you rather than all up here.'

Checklists could also support with DA requiring EPs to generate and test cognitive/ affect hypotheses during assessment, as suggested by Green and Birch (2019).

The focus within outcomes on understanding of the factors impacting learning was received well by the EPs in the focus group, as in hypotheses 3c, 3d and 3e, and it was emphasised that the focus of DA on the process of learning was important. This was positioned as different to defining the child, and so perhaps links to changing the narrative around the child.

FG EP6: 'I like the focus on the learning process, so it's not about defining the child so much, it's about that process of learning, how the child learns'

This also linked to a broader discussion around the value of assessment and DA in particular, and it was acknowledged that no assessment would give a complete picture of a child's learning. It was suggested that DA had a focus on identifying next steps and changing the narrative around a child, linking several of the outcomes together, for example in hypothesis 3e. This may also link to the assessment question, and when DA may be more appropriate, explored in the intervention section below.

FG EP4: 'So it's like, what's that helpful next step to move this situation forward... What's the different narrative around this child that's going to move them forward or what's the mediation is going to help them move that forward?... Doesn't need to answer all the questions just needs to know what's the next step to help that child move on in terms of their confidence or their learning'

By exploring learning processes, DA has been suggested to answer the question 'why?' a child is experiencing difficulties in learning (Stringer et al., 1997). Stacey (2017) also reports EPs describing that DA can provide information about the child's learning, including their strengths, difficulties, their approach, change in performance with mediation, affective factors and intervention needed. The current study corroborates this, and begins to explore why and when these outcomes might arise.

In the interviews, DA was shared to be helpful to EP formulation around a child, linking specifically to hypotheses 3c, 3d and 3e. Formulation is described as 'the summation and integration of the knowledge that is acquired by the assessment process' (British Psychological Society, 2017, p. 10) and should be 'comprehensive' (Annan et al., 2013, p. 80). This would suggest that formulation would include both cognitive and affective factors. In addition, EP assessment is suggested to offer a broad and holistic perspective on the child, including their social and emotional wellbeing (Atkinson et al., 2022). The current study suggests that EPs feel DA is helpful in developing a thorough formulation, with its focus on a range of factors.

In hypothesis 3a, EPs believing in and applying the philosophy of DA is linked to the experience of the child and environment created, as discussed above. This could also lead EPs to be more likely to use DA, inferred from the preference expressed in this study. Other studies have also suggested that TEPs can be motivated to use DA due to the nature of the process (Murphy, 2023), and that use of DA can be linked to the professional identity of an EP (Stacey, 2017). Furthermore, feelings amongst EPs that DA may be perceived as more ethical than other forms of assessment are also represented in the literature (Murphy, 2023; Stacey, 2017), perhaps linked to the historical use of standardised assessments within the EP profession and how they may have contributed to social injustice (Kuria & Kelly, 2023). Findings from the current study consider the broader implications of EPs choosing to apply the philosophy of DA, in terms of the associated mechanisms and outcomes.

Intervention Factors. The intervention element of the initial programme theory suggests that there are a number of factors that impact how EPs use DA, and whether they use it. This includes how DA is defined, how it can become embedded in EP practice, whether EPs consider it appropriate for the context of their work and individual and systemic factors including confidence, training, time and wider systemic views on assessment.

Within the intervention section, EPs in the focus group discussed how DA can become embedded within EP practice, and that the values of DA may be applied by the majority of EPs across different aspects of their work.

FG EP6: 'That question about what helps a child to achieve as much as they can, even if we're not sort of specifically doing dynamic assessment, that should be something we're always thinking about'

This suggests that this is an element of the original analysis that particularly resonates with EPs. In the literature, DA principles have been applied to different areas of EP practice, including exploring inclusion in schools (Flynn, 2005), within consultation (Hymer et al., 2002), when supporting teachers to develop their teaching knowledge and practices (Norwich et al., 2018), and through a training programme for learning support staff (Stanley-Duke et al., 2022; Wright et al., 2023). These examples illustrate the idea that DA can become embedded in different areas of practice, and the current study suggests that this can be a conscious choice for EPs.

In considering when DA may be appropriate for use, there was some difference in opinion between EPs in the focus group who felt that DA may answer different questions to standardised assessment, and EPs who felt that these were completely alternative approaches. The idea that different assessment types may be more appropriate to answer different assessment questions has been discussed within the literature (Cizek, 1997; Lauchlan & Carrigan, 2013). This is perhaps linked to the way that EPs develop and explore hypotheses around a situation, which is included in a number of frameworks for practice (for example Gameson & Rhydderch, 2016; Monsen & Frederickson, 2016). Frederickson and Cameron (1999) suggest that assessment should be purposeful and hypothesis driven, therefore DA may be more likely to be used when hypotheses can be evaluated by

using DA. In addition, Lidz (1991, pp. 121–122) suggests that different assessment questions may be best suited to different types of assessment, with DA answering questions about 'how the child learns, how responsive the child is to attempts to intervene, and what seems to be interfering with the child's ability from existing attempts at instruction'. This study has further developed thinking around how and why EPs may choose to use DA.

Participants in the focus group also reflected on the idea that the use of DA can be facilitated in certain situations, and wondered about how this could be further supported, for example through training. The current study suggests that EP use of DA can be facilitated by training, and this supports findings from Stacey (2017), with Murphy (2023) also suggesting that the University experience of TEPs influences their use of DA. Likewise, Leadbetter (2005) describes how the conceptual tools and theoretical frameworks used by EPs more generally are influenced by a range of factors, including the professional training course they have undertaken and practice experiences such as continuing professional development and specialist interests. This could link to the idea expressed in the current study that DA requires the EP to trust themselves due to there being fewer guidelines, and this link to confidence has also been discussed in the literature (Callicott et al., 2019; Green & Birch, 2019; Haywood & Lidz, 2007; Murphy, 2023; Stacey, 2017). Time was also reported as a barrier to DA, and this has been referred to in previous literature (for example Stacey, 2017). The current study corroborates these factors with an original sample of EPs, and situates them within a developing theory of how EPs use DA.

Wider systemic factors were also shared to facilitate or constrain EP use of DA within the interviews and thematic analysis in the current study. This appears to align with the literature. Deutsch and Reynolds (2000) reported that EPs felt attitudes within LA EPSs were leading to pressure to carry out standardised assessment, and more recently some TEPs have shared that they feel attitudes and expectations towards assessment within LAs impact their practice of DA (Murphy, 2023). A recent workforce report has suggested that amongst a high demand for resources and EP involvement, standardised assessments may be requested due to beliefs that they provide quantified evidence for an Education, Health and Care Plan (EHCP; Atfield et al., 2023). Findings from the current study would suggest that these barriers may

remain in the current professional context, and may contribute to considering how these can be addressed.

It is also important to consider the idea that longer-term outcomes from DA are difficult to evaluate in the current professional context. Although this was not included in the initial programme theory, it represents a limitation of this study and other existing studies. This theme highlights a potential disconnect between the perceptions of EPs of the outcomes of DA, and perhaps outcomes as evaluated using other means, and reinforces the need to be tentative when considering how perceived changes in thinking and behaviour facilitated by DA may manifest over time. The challenges with considering the outcomes of EP practice more broadly have been discussed within wider literature. For example, a recent workforce report suggested that EPs have 'limited visibility' of the outcomes of their work, and this was linked to EPs working in an 'indirect and time-limited' way (Atfield et al., 2023, p. 76). This has internationally been referred to as the 'Paradox of School Psychology', which suggests that indirect service delivery approaches working with adults may maximise the impact of school psychologists (Gutkin & Conoley, 1990). However, this can make it challenging to define and measure the outcomes of school psychologists' work (Müller et al., 2021). This is an important consideration for EPs, linked to professional standards in terms of ensuring quality of practice (Health and Care Professions Council, 2023). Therefore developing tools to evaluate the outcomes of DA could be an area for future exploration, building on work such as that by Eddleston and Atkinson (2018), who considered ways in which EP consultation could be evaluated.

2.4.3. Implications for Educational Psychology Practice

This study has contributed to the developing evidence base for EP use of DA, by being the first study to use a realist evaluation framework to explicitly consider the contexts, mechanisms and outcomes that may be important. By applying this framework in exploring EP perceptions, understanding of how EPs use DA in practice has been enhanced. This could be helpful in the development of training and best practice guidelines around EP use of DA. In addition, the initial programme theory and CMO hypotheses may give EPs a theoretical framework within which

they can justify practice decisions, as required by professional practice guidelines (Health and Care Professions Council, 2023).

The initial programme theory and CMO hypotheses could be used by EPs as tools for reflective practice or in professional supervision (Health and Care Professions Council, 2023), in terms of considering the outcomes that may occur when they use DA in their practice, and the contexts and mechanisms that may contribute to these. In addition, EPs could consider the contexts within which they use their DA in their practice to ensure that these support positive outcomes as much as possible. This could include ensuring that school staff have the opportunity to be collaboratively involved wherever possible (hypotheses 1a and 1b), considering how discussion and written communication can be as clear as possible in terms of report length and language used (hypothesis 1c), and setting school staff up to have realistic expectations of DA (hypothesis 1d). Due to the perceived importance of these contexts and associated mechanisms in the study, it might be that staff involvement in DA needs to be seen as a foundational element of the process, and therefore prioritised wherever possible.

EPs could also consider how children are prepared for DA, how they are collaboratively involved in the process, for example through reflecting their strengths and checking whether observations resonate with them, and how DA is followed up with the child. These contexts may support positive outcomes through increasing the likelihood that the child will experience autonomy and competence (hypotheses 2a and 2b), and EPs could consider other ways in which they could facilitate this for the child.

Findings from this study may support EPs to reflect on how and why they decide to use DA, how it influences their practice more generally, the tasks and resources they choose to use and why, and how they apply the principles of mediation (hypotheses 3a, 3b, 3c, 3d, 3e and intervention factors). In addition, EPs could more explicitly reflect on some of the mechanisms and processes that may occur during DA, including those that relate to themselves, others and between themselves and others (mechanisms). This could enhance self-awareness, which can be part of reflective practice (O'Hara, 2021).

Although the nature of this study impacts the conclusions that can be drawn around the outcomes involved in DA, it suggests that from the perspective of EPs, DA can have positive and meaningful outcomes, and it has identified outcomes that would be beneficial to explore further. The outcomes suggested from this study could be used by EPs to explain to school staff and/ or other stakeholders why they are using DA and what is hoped to happen as a result. This could be linked to setting school staff up so that they can have realistic expectations of DA, and be open to collaborating and engaging in the process (hypotheses 1a, 1b, 1d).

At the systemic level, this research could support EPS leadership and management to consider the ways in which contexts that support positive outcomes from EP use of DA can be facilitated. This could include access to training to support EP confidence, access to suitable tasks and resources, and openness to different assessment types (intervention factors).

2.4.4. Critical Appraisal and Areas for Future Research

Whilst it is hoped that this study has provided original insights with meaningful implications for EP practice, the limitations of this study must be acknowledged. Subsequently, a number of areas for future research can be identified. The current study will now be critically appraised, and this is expanded upon in the reflective chapter.

The participants in this study were EPs from one LA, which could be described as a geographically homogenous sample (Robinson, 2014). This could limit conclusions from the findings, as they may be specific to this LA and therefore less meaningful to EPs across the UK more widely. However, the LA is large and varied in terms of the areas it covers, which would suggest that implications from the study may apply more widely. In addition, the EP participants varied in terms of their experiences and other characteristics (see participant characteristics in Table 4), and several spoke about working in other EPSs. Therefore it may be that EP experiences of using DA in a range of services have been captured within the data. Furthermore, having a more homogenous sample may have supported findings to be situated within the EPS, and may have increased the likelihood that meaningful crossparticipants themes could be developed during analysis (Robinson, 2014). Similar to a case study approach, it could be that this EPS could be seen as a 'typical' case,

with findings hoped to generalise to theoretical propositions (Yin, 2003), as the realist evaluation framework aims to develop.

Themes developed within the current study appear to align with previous research into DA and literature on the wider professional context, particularly Stacey (2017), whose study bears most similarity to the current study. This would suggest that the findings are meaningful more widely, with the current study going further by explicitly considering mechanisms important in DA, and linking these to contexts and outcomes. There may also be an inherent value in triangulating existing findings through a slightly different perspective, by using an original sample of EPs from a different area of the UK and within a more current professional context, to build a broader and richer picture of EP use of DA. This could be built upon in future research. It is acknowledged that participants volunteered to be part of the study, and therefore it is likely that the sample consisted of EPs with a particular interest in and preference for DA. This appears to be reflected in the findings, and whilst this has provided rich examples of when DA is perceived to have positive outcomes, there were reduced opportunities to consider DA from the viewpoint of EPs who may have had less positive experiences, and explore disconfirming cases (Yardley, 2015). Exploring the views of EPs with a wider range of experiences may therefore be helpful in the future.

Within this study, EPs have provided a rich and informed perspective of the contexts, mechanisms and outcomes involved in DA. Wider literature on realist evaluation methodology does suggest that interviewing practitioners can be beneficial for theory gleaning (Manzano, 2016) and practitioners may have specific ideas on mechanisms due to their broad experience and awareness of the programme (Pawson & Tilley, 1997). However, by focusing on EPs the views of other stakeholders, such as school staff, children and perhaps parents, are not represented in the current study. This would be important in further refinement and exploration of the CMO hypotheses and initial programme theory, as there is a recognised division of expertise across stakeholder groups who have different but complementary views (Pawson & Tilley, 1997). Therefore the perspectives of other stakeholders are viewed as an area of priority for future research.

It is felt that this study has been enhanced by carrying out a focus group as part of a second phase of data analysis, where findings have been directly explored with a sub-group of the original participants. The focus group could be described as participant/ respondent feedback, viewed as a further source of information which enriches the analysis (King & Brooks, 2018). Feedback on the initial programme theory from the focus group was generally positive. Therefore along with providing further insights into the contexts, mechanisms and outcomes that may be important in DA, findings from the focus group give weight to the claim that interpretations made during data analysis resonate with participants, and reflect the original views expressed during interviews. However, participants may have been less likely to openly challenge interpretations as they were known to the researcher and had taken part in the interview stage of the research. Therefore, it should be acknowledged that feedback may have a positive leaning. In addition, whilst the current study uses a realist evaluation framework, it does not claim to represent all stages of a realist evaluation methodology. Primarily, it is acknowledged that single evaluations will not produce universally valid findings, but may produce insights that can 'kick off' a new study (Marchal et al., 2012). It is anticipated that further data gathering, evaluation and refinement of a programme specification would take part in future research.

In addition, data in the current study is exclusively qualitative. This is felt to be justified in the context of this study. For example, it has been suggested that quantitative methods may be unsuitable for a qualitative, process-based approach such as DA (Feuerstein et al., 1981; Stringer, 2018), with further discussion of this in relation to EP practice more generally contained within the literature review chapter. Furthermore, qualitative data is often felt to be particularly effective at uncovering contextually grounded explanatory mechanisms within realist evaluation frameworks, and can allow development of hypotheses (Pawson & Manzano-Santaella, 2012; Sayer, 1992). It is felt that at this early stage of theory development in this area, qualitative data has allowed a rich exploration of potential contexts, mechanisms and outcomes, and how they may link to DA.

Nonetheless, it is acknowledged that the current study could represent what has been referred to by Pawson and Manzano-Santaella (2012) as 'qualitative

realism', where qualitative accounts of why a programme 'works' and outcomes are interpreted as evidence of success (Manzano, 2016). More generally, the need for moderation in claims made by qualitative research has been discussed (Hammersley, 2008). Therefore, while the current study may have developed tentative CMO hypotheses and proposed an initial programme theory, it is acknowledged to be a preliminary inquiry, and particularly in the case of contexts and outcomes further data would be required (Pawson & Manzano-Santaella, 2012). The limitations of the data in exploring outcomes, particularly over time, was acknowledged by participants.

Future research could continue with the realist evaluation cycle considering EP use of DA, by further testing and refining the CMO hypotheses. This could lead to ongoing refinement of the programme theory for EP use of DA and consideration of how this could be used to develop DA practice within EPSs. Future research could include more stakeholder groups, discussed above, along with a wider range of methodologies, particularly in terms of contexts and outcomes. However, although triangulating findings through different methodologies may be helpful in future research, it could be debated as to how practical and meaningful this would be in the context of EP practice. This could be an area of inconsistency between realist evaluation and real-world EP practice.

Conducting research in a way that ensures high standards in quality and integrity is referred to in ethical guidelines (BERA principle 3, guideline 60 and 62; BPS COHRE 2.2). Considering what constitutes 'quality' in thematic analysis is inherently linked to the study's ontological and epistemological stance (King, 2023a; King & Brooks, 2018). Therefore, it is challenging to identify quality and validity criteria that may apply to qualitative studies more universally (Yardley, 2015). Quality and reporting standards have been developed for realist evaluation studies (Wong et al., 2017), however as the current study does not fully adhere to realist evaluation principles, these will not be referred to. Instead, a number of criteria for template analysis are suggested by King (2012, 2023a; 2018), along with more general guidance on enhancing and demonstrating validity in qualitative research developed by Yardley (2015). These criteria have been summarised in Table H1 in Appendix H, along with a description of how this criteria was incorporated into the current study.

In addition, questions adapted from the British Sociological Association Medical Sociology Group adapted by Silverman (2022) were considered as part of reflective practice.

2.4.5. Conclusion

Perceptions of EPs within this study suggest that the outcomes that occur when EPs use DA may be linked to mechanisms which occur within certain contexts, and that these are complex and intertwined. There are also a number of factors that impact how EPs use DA, and whether they use it, including how it is defined, how it can become embedded in their practice, whether they consider it appropriate for the context of their work, and individual and systemic factors including confidence, training, time and wider systemic views on assessment.

It is suggested that when school staff are collaboratively involved in the DA process, when communication is clear, and they have been set up to have realistic expectations of DA, they may increase their understanding of factors impacting learning for the child, the narrative around the child becomes more hopeful and they may do something different to support the child. These outcomes may occur in these contexts because there has been the opportunity for an exchange of ideas, existing thoughts and ideas have been challenged, and a shared understanding of what helps to support the child has been developed between the school staff and the EP.

In addition, when the child is collaboratively involved in the DA process, their understanding of their learning may increase and their self-perception may become more positive. This may be because an environment has been created that supports the child to experience autonomy and competence and DA is a positive experience for the child.

Within DA, EPs choose certain tasks and resources, apply different types of mediation and believe in and apply the philosophy of DA. These are suggested to lead to outcomes such as understanding and formulation of factors impacting learning for the child being developed, the narrative around the child becoming more hopeful and the self-perception of the child becoming more positive. This is again linked to the mechanisms of creating an environment where the child can experience autonomy and competence, but also the EP making observations and linking these

to existing theory, and actively considering and adapting mediation to the needs of the child.

Contexts, mechanisms and outcomes developed from this study have been developed into an initial programme theory, to allow exploration of how, why and when EP use of DA may have positive outcomes. This is hoped to provide a framework for EPs to reflect on in their practice, contribute towards development of theory, guidelines and training, and provide a springboard for further research. In addition, it is hoped that this study has highlighted the potential of DA as a tool for EPs, and supported consideration of how it could be used to maximise positive outcomes for children.

Chapter 3: Reflective Account

3.1. Introduction

Reflection and reflexivity have been instrumental in my development as a Trainee Educational Psychologist (TEP) and researcher, and are referenced in British Psychological Society (BPS) Practice Guideline 1.3 (2017), BPS Code of Human Research Ethics (CoHRE) 2.3 (2021b), and the Health and Care Professions Council (HCPC) Standards of Proficiency (SoPs) 10, 10.1 and 10.3 10, 10.1 and 10.3 (2023). Reflexivity in research involves critical reflection on how the values of the researcher, methods, design and academic disciplines shape the research and knowledge produced (Braun & Clarke, 2022; Wilkinson, 1988). Throughout this process, I have explored my values, beliefs and choices, and considered the impact of these on my research. This final chapter of the thesis portfolio will therefore give a critically reflective and reflexive account of the different stages of the research process, intended to complement the literature review and empirical chapters. This will include justification and reflection on the decisions made, a critical appraisal of the approaches taken, and a consideration of where this research fits within my own development, and within Educational Psychologist (EP) practice more widely. As this is a reflective account, I have chosen to write this chapter in the first person.

3.2. The Research Process

3.2.1. Choice of Research Topic

I became aware of Dynamic Assessment (DA) when working as an Assistant EP, and received further input in my first year of the Doctorate, both on placement and during University teaching. I developed an interest in the approach, and felt that it aligned with my values, for example appearing strengths-based, solution-oriented, and focusing on success. I was particularly inspired by a podcast on DA (Kennedy et al., 2022), and felt an enthusiasm to incorporate some of the ideas discussed into my practice. Alongside this, I was becoming aware of various debates around EP use of standardised psychometric assessments (for example Sewell & Ducksbury, 2013; Zaniolo, 2019), some of which are explored in the literature review chapter. During my experiences on placement, I found that I preferred to carry out DA rather than standardised psychometric assessment, as it felt to me to be more positive due to being able to provide mediation for the child. I also felt that DA linked more naturally

to classroom practice, whereas I found that psychometric assessment results could seem abstract and complex. Although I endeavour to keep a critical and open mind about assessment tools, and continue to use a variety in my practice to explore specific hypotheses and questions, I anticipate my future practice being more oriented towards DA approaches. It is therefore important to acknowledge that these prior views and beliefs may have affected my engagement with different aspects of the research, and I have considered this throughout this reflective chapter.

As I started to look more into DA, I became increasingly aware of some of the hesitations of EPs towards DA. In my own practice, I experienced that the procedure and write up was not always clearly defined, similar to reflections from Hattersley (2020). I could recognise how this could lead to reduced confidence for EPs or TEPs carrying out DA, and initial exploration of the literature outlined barriers that were perhaps contributing towards a lower use of DA amongst EPs, despite apparent enthusiasm for the approach (for example Deutsch & Reynolds, 2000; Kennedy, 2006; Murphy, 2023; Stacey, 2017). In particular, it was interesting to notice the similarities between themes in literature from over 20 years ago, more recent literature, and my own reflections and observations. I felt that research into DA could be a way of addressing some of these perceived and persisting barriers, and would perhaps contribute to facilitating the use of DA amongst EPs who wished to use it. I also felt that the topic of DA would fit well with my Doctorate training by enhancing my own practice skills and being relevant to the professional context of EPs. At the time, my placement service had received service-wide training on DA, with further input planned in the near future. This reiterated the relevance of the topic, and I felt that service priorities would also be supported.

3.2.2. Literature Review

I decided to focus my initial literature review on the use of DA by EPs in the UK. This is justified further in the literature review chapter, but I felt that this would provide an appropriate amount of literature whilst remaining relevant to the professional context I am situated within. When exploring the literature, I found I was particularly interested in the outcomes that occur when EPs use DA, and felt that this might be where I would like to situate my own research. I therefore had a specific

question around outcomes of DA, and completed a more thorough review and appraisal of existing studies in this area.

I decided to use a semi-systematic approach to my literature review, and organise my findings thematically around three main questions. A semi-systematic approach was felt to be most appropriate given that I was exploring a broad topic that has been conceptualised differently within diverse disciplines (Wong et al., 2013), and I was hoping to map theoretical approaches, provide an understanding of complex areas and identify knowledge gaps within the literature (Snyder, 2019). In addition, I felt that this aligned well with a critical realist theoretical perspective, with a balance of flexibility and rigour. Had there been more quantitative data available, or had I taken a more positivist epistemological position, an alternative approach such as a systematic approach may have been more appropriate, as this would have allowed me to synthesise and compare evidence on a more specific research question (Snyder, 2019). In addition, a realist synthesis (Pawson et al., 2005) may have fitted well with my eventual choice of methodology. However, at the time of completing the literature review I had not yet settled on this. Furthermore, I do not feel I would have been able to consider 'a wide range of information from diverse primary sources' (Pawson et al., 2005, p. 23) due to a lack of existing research in the area.

As I had prior beliefs about DA, as explored above, it is possible that I may have placed greater weight during the literature review process on literature which aligned with my existing views. However, by adding an element of rigour to my literature review through clear search parameters and inclusion and exclusion criteria, I hope that I ensured a more balanced weighting could be given to a variety of viewpoints. Consistent with critical realism, I accepted a variety of research types as meaningful and important, as critical realism is pluralistic in its approach to evidence and emphasises triangulation across methods (Rousseau et al., 2008). In addition, I considered that any literature is impacted by the constructions and perspectives of the author(s), and so the knowledge reported is not independent of any particular viewpoint (Maxwell & Mittapalli, 2010).

Braun and Clarke (2022) discuss how literature reviews can serve different purposes. This can involve validating the focus of a project based on a gap in the

literature, but can also involve providing a context and rationale for the current research, explaining why it is interesting and relevant. This can be linked to theoretical perspective. When writing my literature review, I found it helpful to keep both purposes in mind, and I feel that this aligned with a critical realist position. I felt that I wanted to justify how my study was original, interesting and relevant, however I also felt that this included addressing a perceived gap in the literature. There appeared to be a number of gaps in the literature, which are summarised in the literature review, and I felt that any of these gaps could have made interesting and valuable studies.

3.2.3. Methodology

After my literature review, I had decided that I wanted to focus on exploring when EP use of DA has positive outcomes. Although this may have been linked to an assumption that DA did have positive outcomes, it did appear to be consistent with the literature (for example Lawrence & Cahill, 2014), and I felt that it would support development of best practice approaches. In addition, it aligns with a solutionoriented psychology approach (Harker et al., 2016), which I often adopt in my practice. I had also decided to use a qualitative approach for the reasons discussed in the empirical chapter. After a discussion with a member of the course team, they suggested realist evaluation methodology. This was not something I had heard of previously. On exploring it further, I felt that it fitted my aims and hopes for the study. This was also a methodology suggested as an area for further research in Stacey's (2017) thesis. I therefore hoped that using realist evaluation methodology could be a helpful contribution to the field. Mayer (2008) suggests that research questions in educational psychology should be determined based on personal interest, educational relevance, theoretical grounding and empirical testability, and I felt that using realist evaluation methodology to explore when EP use of DA has positive outcomes would fulfil these criteria.

Initially, I planned to interview a range of stakeholders in DA, including EPs, school staff and children, along with observing a DA session, and this is reflected in my original ethics application (Appendix K). I was then planning to analyse the data and complete second interviews with EPs and school staff. At this time, I hoped that I could complete something that resembled a full realist evaluation cycle, involving

development of programme theory and associated hypotheses, followed by further testing and refinement into a clearer programme specification (Pawson & Tilley, 1997; Timmins & Miller, 2007). However, as my understanding of realist evaluation methodology developed and I made changes to my participants and data collection methods (see below), I realised that I had to be practical about what I could achieve, and not overstate my study. I therefore reframed my study as using a thematic analysis within a realist evaluation *framework* to explore EP perspectives of the contexts and mechanisms that contribute towards EP use of DA having positive outcomes, and this is the final title. This is positioned as an exploratory study which develops an initial programme theory and context, mechanism, outcome (CMO) hypotheses, with further development and refinement taking place in future research. Mayer (2008) refers to how methodology must be feasible, and I wonder if I initially underestimated the importance of this.

At times, I have felt slightly disappointed to have not carried out my original plans. However, I recognise the importance of being pragmatic about what I could achieve, and instead focusing on doing what I could do as well as possible. It has been acknowledged within the literature that due to their comprehensive scope, realist evaluations require substantial expertise, time and resources (Marchal et al., 2010). Learning a new methodology was a challenge, perhaps especially as realist methodology has a lack of specific practical guidance (Rycroft-Malone et al., 2010), and terms are often used interchangeably in the literature (Marchal et al., 2012). I found it helpful to look at examples of realist evaluations that had been carried out within EP practice (for example Birch, 2015; Lunt, 2016), and tried to ensure that I was clear about the definitions of terms and concepts that I would be using in my study and how.

Overall, I feel that using a realist evaluation framework, particularly the development of the CMO hypotheses, allowed my research to be clearly structured and boundaried, and that this is reflected in my main research question and subquestions. I therefore agree with Matthews (2003) that realist evaluation provides a useful framework to use when developing theory about psychological processes involved in EP practice such as DA. Had I not used a realist evaluation framework, I think I would have likely carried out an exploratory study using thematic analysis to

explore similar, although perhaps less specific, research questions. Although this would have been valuable, I do not feel that it would have made as interesting or original contribution to the literature in this area, as the CMO structure is particularly useful for understanding a process.

3.2.4. Ontology and Epistemology

As I have developed my understanding of ontology and epistemology, I have felt that the position of critical realism particularly aligns with how I see the world. This includes the central idea that there is a real world (realist ontology) that is understood differently through individual perspectives (constructivist epistemology) (Maxwell & Mittapalli, 2010). In particular, considering how the constructions and experiences of others may impact on how they see the world feels to be significant in my practice. This position has impacted my approach and decisions throughout this research process, and this is discussed throughout this reflective chapter.

Within the empirical chapter, I have discussed the nuances between critical realism and scientific realism, upon which realist evaluation is originally based (Pawson & Tilley, 1997), and I have found this to be a complex issue. Overall, I feel happy with my justification of adopting a critical realist position whilst using a realist evaluation framework presented in the empirical chapter, and hope that I have demonstrated consistency throughout my approach (Yardley, 2015). However, in the critical appraisal section of my empirical paper, I discuss how Pawson and Manzano-Santaella (2012) express that for further exploration of outcomes evidence should go beyond qualitative data, suggesting that quantitative data may be preferable. As I have discussed in the literature review and empirical chapters, quantitative data may be challenging due to resources and the requirement to operationalise and measure complex variables, and could be perceived as less meaningful that qualitative data. This may therefore be an area of epistemological incompatibility between more traditional realist evaluation and DA, and could link to the wider debate around evaluation of EP practice (for example Gulliford, 2015).

3.2.5. Participants and Recruitment

As previously mentioned, I originally hoped to gather data from a variety of stakeholders involved in the DA process, including an observation of the DA task, as this is what is usually suggested for realist evaluation research (Pawson & Tilley,

1997). However, this initial round of recruitment was not successful. I reflected with my supervisor around possible reasons for this, for example whether this could be due to EPs using DA infrequently, whether the upcoming work would not have been appropriate for me to observe, whether this was asking too much of already busy professionals, or whether the prospect of being observed in their practice may have been daunting. Being keen to start data collection, I proceeded to recruit for EP interviews only, which was more successful. With support from my research supervisor, I made a further pragmatic decision to collect data from EPs only, and reframe the boundaries of my study as discussed above. Gathering the views of multiple stakeholders would be an interesting and important area for further research, and something that I hope I may be able to carry out in the future.

Despite initial disappointment at not fulfilling my original hopes for recruitment, I feel that interviewing EPs fitted well with the eventual framing of my research as an exploratory study for development of initial programme theory and CMO hypotheses. For example, Marchal et al. (2018) explains how initial programme theories can be developed through eliciting and analysing the assumptions of the programme implementers, which in this case would be EPs. As I completed the interviews, I felt that EPs provided rich and interesting insights into the contexts, mechanisms and outcomes involved in DA, and this therefore seemed a beneficial place to start the realist evaluation process.

My final sample consisted of seven EPs, with four also taking part in an additional focus group. Braun and Clarke (2022) describe how 'sample size' is a concept from quantitative research that is not compatible with many of the qualitative research principles. However, Guest et al. (2006) suggest between six and twelve participants for qualitative research projects, which also appeared to align with what was typically expected for a TEP thesis. In addition, Malterud et al. (2016) introduces the concept of information power to determine participant numbers, with the larger information power the sample holds the fewer participants needed. This is linked to aspects such as the aim of the study, specificity of sample, use of applied theory, quality of dialogue and type of analysis. Based on this, I would consider my participant sample to have a relatively high information power in relation to my research objectives. This is linked to having a reasonably specific aim for my study in

terms of contexts, mechanisms and outcomes involved in DA, having EP participants who have used DA, therefore holding characteristics specific for the study, and hopefully a high quality of dialogue between me as an interviewer and my participants. In addition, my number of participants had to be practical within the time and resource constraints, and I had to consider the ethical principles of voluntary participation and my dual role discussed in the empirical chapter. Therefore, whilst additional participants may have added additional insights and perspectives to my data, I feel that seven EPs was an appropriate number for my study.

3.2.6. Data Collection

For the first phase of data collection, I carried out semi-structured individual EP interviews, based on 'theory gleaning' principles (Manzano, 2016, p. 354). Interviews have the potential to provide rich material, can be flexible and adaptable (Robson & McCartan, 2016), and can be used as a means to explore propositions that will be tested and refined with other data (Manzano, 2016). Consistent with a critical realist approach, I also viewed the interviews as a way of appreciating the interpretations of participants, along with considering the social contexts, constraints and resources within which they operate (C. Smith & Elger, 2012).

As the interviews were semi-structured I used a schedule, but modified the wording and order of questions based on the flow of the interview, with some additional questions asked to follow up (Robson & McCartan, 2016). I felt that this was appropriate for the purpose of 'theory gleaning', as interview content needed to relate to the contexts, mechanisms and outcomes relevant to EP use of DA, but I was also hoping to capture and explore a wide range of possible views and ideas. Manzano (2016) describes how participants in theory gleaning interviews are helping the researcher to articulate theories about how contextual circumstances might impact behaviours and outcomes, and that they generally start with general questions about the participants' role/ experiences/ views, before asking more specifically about their experiences. On reflection, I felt that this format worked well, as the question prompts supported me to gather data that was relevant to my research questions, but also allowed me to explore more specific examples and different ideas depending on what the EPs spoke about.

I completed the interviews via Microsoft Teams. Since the Covid-19 pandemic, online working has become a more routine part of EP practice (Moore, 2022), and therefore I anticipated that EPs would feel comfortable with communicating in this way. I also felt that this would be a more pragmatic way of collecting data, from the perspective of travel time and cost, along with ease of recording. I appreciate that speaking online is different to being in-person, for example during the interviews I noticed some missed cues where the participant and I started to speak at the same time, and it can be more difficult to read non-verbal cues. However, I did not feel that this impacted negatively on the interview process, and that I was still able to build rapport with participants. Elements of my experience of virtual interviews resonate with a discussion by Keen et al. (2022). Whilst they acknowledge that there may be some disadvantages in using virtual interviews for qualitative research, including fewer body language cues, there are a number of commonalities with in-person interviews, including building rapport, facial and vocal cues and enjoyment. They also describe practical advantages similar to those I have acknowledged, and suggest that virtual interviews may offer opportunities for methodological innovation.

Initially, I was planning to complete a second, 'theory refinement' individual interview with each EP (Manzano, 2016, p. 355). As my analysis developed, I realised that my study was more exploratory, and at the early stages of the realist evaluation cycle (see methodology section above). I also appreciated that individual interviews would take increased time for me and for the participants, and with supervision decided that a focus group may be more appropriate. Focus groups have been described as an efficient method of data collection in terms of amount and range of data collected (Robson & McCartan, 2016). Focus groups also allow interaction between participants (Cohen et al., 2011), and I felt that this would yield a valuable collective view of the initial programme theory. The focus group was structured around 'theory refinement' realist interview principles as defined by Manzano (2016, p. 355) and Pawson and Tilley (1997), and the 'teacher-learner' function (Pawson & Tilley, 1997, p. 166). This involved a more focused exchange of ideas driven by the initial programme theory developed from the interview data, where I explained the initial programme theory to participants, then invited them to comment on the ideas so that I could learn about their perspectives (Manzano, 2016).

I invited all of my original participants to be involved in the focus group, with four opting to take part. This felt like a suitable number, as all participants had the chance to contribute, but there was also variation in experiences, ideas and viewpoints. This would be described as a homogenous group (Robson & McCartan, 2016), and participants were known to one another through working in the same service, which I also work in. This may have supported participant rapport in the group, particularly as reflecting with other EPs on an area of practice will be familiar to participants, and the topic of discussion was not considered to be sensitive. I was also known to participants, and further reflection on this dual role is contained in the ethical considerations section below.

My role in the focus group felt different to my role in the interviews, as I was positioned as a facilitator (Robson & McCartan, 2016). I therefore found that I contributed less to the discussion than I did during the interviews, and perhaps as a result I was a less active participant in the construction of the data. I felt that using the teacher-learner function worked well, and gave me a clear purpose for the group which I could explain to participants. Sharing the initial programme theory with others had initially seemed daunting, as I had put time and effort into developing it, and I hoped that it resonated with their experiences that they had shared during the interviews. Hearing positive feedback from participants felt validating, and was also helpful in shaping my thinking and discussion as I wrote up my findings.

3.2.7. Data Analysis

Realist evaluation literature does not specify a particular analysis method (Tolson et al., 2007), which initially created feelings of uncertainty. I knew that I would need a qualitative analysis method that would allow contexts, mechanisms and outcomes to be coded within the data, and for these to be grouped into CMO hypotheses and subsequently an initial programme theory (Marchal et al., 2012). I felt that thematic analysis would allow this, and appeared to be an approach frequently used in realist evaluation studies using qualitative data, including those exploring areas relevant to EP practice (for example Birch, 2015; Lunt, 2016; Webb, 2011). I understood that thematic analysis can be used within a range of theoretical orientations, and that different variations of thematic analysis can reflect different conceptual foundations (Braun & Clarke, 2022). It was therefore important that the

type of thematic analysis used would be consistent with the realist evaluation framework and my theoretical perspective of critical realism.

When I considered my critical realist position, and use of a realist evaluation framework where I had specific questions and objectives for my analysis, I did not feel that this would be consistent with the 'Big Q' methodology and strongly inductive method of reflexive thematic analysis (Braun & Clarke, 2022). Braun and Clarke (2022) identify three clusters of thematic analysis, including what they refer to as 'codebook thematic analysis', which combines values from a qualitative paradigm with a more structured coding and theme development. This contains an approach often referred to as template analysis (King, 1998). Template analysis is described as providing a balance of structure with the flexibility to be adapted to the requirements of a particular study (King, 2012; King & Brooks, 2018), and can be used within a range of epistemological positions (Brooks et al., 2015). Template analysis is also described as a technique rather than a complete methodology (King, 2012), meaning that it was possible to use it within a realist evaluation framework. Template analysis principles have been previously used within a realist evaluation framework in the field of EP practice (Birch, 2015), and it is an approach that has been described as having 'real utility in diverse areas of qualitative psychology research settings' (Brooks et al., 2015, p. 219). I therefore felt confident that I would be able to use this technique to develop context, mechanism and outcome themes within the data to answer my specific research questions, whilst also acknowledging some existing ideas from theory and literature. This would use a combination of inductive and deductive analysis, which I felt would align well with my epistemological position and chosen methodology, and this is discussed further within the empirical chapter.

I decided to use NVivo as a practical tool for organising and coding the interview data, and I appreciate that there are debates around the potential constraints and opportunities of different coding technologies (Braun & Clarke, 2022). I found using NVivo helpful, as extracts could be simply coded to themes, and these could be easily revised as necessary. I did not use any deductive functions of NVivo, for example searching for particular words, and I very much saw it as a tool to support the analysis and interpretation process happening in my mind (Evers, 2018).

In addition, I chose to complete some elements of the process through different mediums, for example I made familiarisation notes using the comments function on Microsoft Word, and clustered initial themes to produce the initial coding template by manually grouping these typed on small pieces of paper. I feel that this allowed me to engage with the data in different ways (Braun & Clarke, 2022; Jackson et al., 2018).

I initially found myself paying attention to the number of extracts and transcripts that were grouped under each theme. This was helpful, in that it drew my attention to themes that could perhaps be easily encompassed into other themes, or where a theme was so broad it could be better represented by a number of more specific themes. However, my supervisor helpfully reminded me that by overly focusing on frequency, my research could become more positivist, and that the purpose of my research was not to give a quantified or representative account of DA. This is echoed by King and Brooks (2018), who suggest that frequency counts are not meaningful in themselves, but that they may draw attention to interesting issues to explore further. I also recognised that significant ideas, or ideas that particularly resonated with participants could appear infrequently. I therefore moved away from considering theme frequency as I progressed through the analysis process.

My original higher-order themes were fairly descriptive, perhaps more similar to topic summaries as described by Braun and Clarke (2022). Whilst this was initially helpful when trying to categorise my many lower-level themes, I realised that I needed to develop these further. I felt that this would allow deeper interpretation of the data, and understanding of the contexts, mechanisms and outcomes in a more conceptual way. Interpretation of the data may also depend on epistemological position (Willig, 2013). In line with a critical realist approach, I made sense of the data though considering possible psychological and social processes that may have occurred during participants' accounts, and using these to provide an explanatory account of the data (Willig, 2013). Throughout this, I considered the ethical responsibility involved in the interpretation, and therefore the transformation, of data (Willig, 2017), and subsequently being able to share this with participants was another way in which holding a focus group felt to be beneficial. When reporting the themes, I was concerned that the richness of the data would be reduced. A

'fragmentation of accounts' (King & Brooks, 2018, p. 232) can be a limitation of thematic analysis, where the context of the data and a more holistic sense of individual experiences can be lost in the analysis and presentation process. Through discussion with my supervisor, I have recognised that the aim of my research has been to develop an initial unified theory, rather than reflecting individual voices, and therefore this approach is appropriate.

I ended up with a relatively high number of themes, with nine main themes and 21 subthemes. I wonder if this reflects that my interview questions were broad, or a diversity in the experiences of participants. This may have also been linked to the way that I kept context, mechanism and outcome themes separate. In hindsight, I wonder if I could have done this differently, and whether this would have supported the development of my CMO hypotheses. In addition, social processes are acknowledged to have 'extraordinary complexity' (Pawson, 2006, p. 42), and therefore gathering a large amount of data may be unsurprising (Southall, 2014), particularly at this relatively early stage of theory development. I wanted to ensure that all my original themes, and not just those which directly related to the CMO hypotheses, were presented in my analysis, as I felt it was rich data in its own right that would add to the understanding of how EPs use DA. However, I also appreciate the importance of prioritising themes which clearly address the research question and appear strongly in participant accounts (King & Brooks, 2018), which I have tried to do as much as possible.

The data analysis process within this research was an area of learning for me. As I progressed through the stages, I had to put aside the drive to finalise things as soon as possible, and instead lean into it as an iterative and 'recursive' (Braun & Clarke, 2022, p. 92) process. I had to remind myself that my interpretation and analysis would gradually develop over time, and found that stepping away from the process before returning to it after a break was beneficial. I also found that my knowledge and awareness of the process itself developed as I implemented the stages. This meant that when I started, I was unsure how the end product would look, and I have resonated with discussion from Braun and Clarke (2022) around managing anxiety and uncertainty when carrying out thematic analysis.

3.2.8. Ethical Considerations

Several ethical considerations have been considered in the empirical chapter of this thesis portfolio, and I have reflected further on some of these. I recognise that ethical issues are intrinsic throughout the research process, including formulation of research questions, through to data collection, analysis and dissemination (Braun & Clarke, 2022; Brinkmann & Kvale, 2017). This was supported by completing a thorough ethical approval process, but also considering my development of ethical research behaviour and capacity to sense, judge and act in an ethically committed way throughout the research (Brinkmann & Kvale, 2017). This is linked to professional culture, and I feel that the centrality of ethics within EP professional standards and guidelines supported me with this. Overall, I felt that the topic of DA was fairly 'safe', as it is something that is frequently discussed within EP practice, and is not considered to be especially sensitive or emotional. I feel that the risks were therefore reduced (British Educational Research Association; BERA 6, 34; BPS CoHRE 2.4; HCPC Standards of Conduct Performance and Ethics; SoCPE 6.1, 6.2), and this hopefully contributed to participants feeling comfortable during the research process.

BPS CoHRE 2.3 refers to social responsibility, including the aim of generating psychological knowledge being to support beneficial outcomes and contribute to a 'common good'. In addition, BPS CoHRE 2.2 refers to ensuring that research contributes to the development of knowledge and understanding. By completing a thorough literature review and carefully considering the objectives of my research, I hope that findings will contribute to the professional knowledge base, and has therefore been a worthwhile use of time for me and for participants. I also hope that EPs who participated in this study may have felt that their involvement was inherently worthwhile, by offering an opportunity for professional reflection on DA practice, in a context where this time is often not afforded. From my experience of completing the interviews and focus group, I am hopeful that this may have been the case, and I did receive positive comments from some participants afterwards which was encouraging.

Another interesting ethical principle for reflection was the dual role that I held, as both a researcher but also a TEP in the Educational Psychology Service (EPS)

where I was conducting the research (BERA 19; HCPC SoP 2.12). As mentioned in the empirical chapter, consideration was given to this dual role and steps were taken to minimise any ethical issues arising from this, including use of gatekeepers, separate email addresses and emphasising the voluntary nature of the study. However, it was the case that I had prior professional relationships with some participants, and/ or had some shared experience with them in terms of working in the same EPS. This is referred to by Garton and Copland (2010) as 'acquaintance interviews'. From my experience, I wonder if this could have been a positive thing, in terms of building rapport and perhaps the interview being a more enjoyable process for participants. At times, our shared experience was used by participants to coconstruct the interview (Garton & Copland, 2010), for example when referring to processes specific to the EPS we work in. I also feel that having a prior relationship reduced any power imbalance between us that may have been more inherent in alternative situations between a researcher and participant (referred to in BERA 19 and BPS CoHRE 2.4, 4.11), as previous interactions may have had a different dynamic. However, during the focus group, it may be that participants were less likely to openly challenge my interpretations as they were known to me as colleagues. Therefore it should be acknowledged that their feedback may have a positive leaning due to my dual role.

The broader dual role as a TEP and researcher has also been interesting to navigate. I feel that I identify more with my role as TEP, as this is more closely linked to my professional identity. This was challenging when conducting the interviews and focus group, as I wonder if at times my instinct was to fall into more of a TEP role, as though I was having more of a learning or reflective conversation with colleagues. This also may have been linked to conducting my research within my placement service, as the participants and I were having to negotiate and reconcile new identities as interviewer and interviewee (Garton & Copland, 2010). Had this not been the case, I wonder if it might have felt easier to keep my roles and identities separate.

3.3. Contribution to Knowledge and Implications for Practice

3.3.1. Proposed Dissemination

Effective dissemination of research has been suggested to narrow the gap between research and practice, supporting evidence-based practice (Sedgwick & Stothard, 2021). There are also ethical imperatives for dissemination, for example BERA (2018) guideline 72 refers to a responsibility to make findings public for the benefit of others, and guideline 5 refers to informing participants about the outcomes of research in relevant and useful ways. Participants were informed of planned dissemination on the information sheet and consent form (BPS CoHRE 4). It has been suggested that using a multi-stranded communications approach for dissemination is more likely to be successful, and that this should be appropriate for the target audience (Harmsworth & Turpin, 2000). Initially, I plan to disseminate my findings at a service level by presenting my research during an upcoming projects and research day. As participants were recruited from my placement service, this will hopefully give some participants an opportunity to hear feedback directly. In addition, I intend to produce a summary document of my findings which can be distributed to all participants and more widely within the service. During the interviews a number of participants expressed interest in my findings, and sharing findings in this way feels important, particularly as I had hoped that a benefit of EPs participating would be supporting their reflective practice around DA.

I also hope to share my research more widely within the profession and beyond. Harmsworth and Turpin (2000) refer to three main dissemination purposes, and I feel that these could all be relevant to this study. For example, *awareness* could be facilitated through a medium such a blog, that could be accessible to people who may not need detailed understanding of the research findings but would find awareness helpful. This could include school staff, or parents, and may support understanding of what DA is, what they can expect and why EPs may choose to use it. Dissemination for *understanding* and *action* could be targeted towards EPs who require deeper knowledge of the findings and may adjust their practice as a result. This could be achieved through publishing findings in a peer-reviewed journal such as Educational Psychology in Practice, presenting a webinar or sharing at regional or national conferences. This may also require a consideration of implementation

science, to facilitate sustainable change at an organisational level (Sedgwick & Stothard, 2021). In addition, this thesis will be published open access on the University of East Anglia (UEA) digital repository, so that anyone wishing to access the full text, for example if conducting future research on the topic of DA, will be able to do so.

3.3.2. Contribution to Knowledge Within the Field of Educational Psychology

To the best of my knowledge, this is the first study to use a realist evaluation framework to explicitly explore the contexts, mechanisms and outcomes that may be important in EP use of DA. Implications for EPs from this research have been explored in more detail in the empirical chapter, and include developing understanding of how EPs use DA in practice, developing theoretical frameworks and best practice approaches for guidelines and training, use as a reflective tool for EPs, developing awareness of DA amongst other stakeholders and supporting DA implementation at a systemic level. This study has contributed to answering calls for increased research into EP use of DA, to support the development of guidelines and regulation for the training, supervision and practice of DA by EPs (Green & Birch, 2019), and use of a realist evaluation approach to explore the contexts and mechanisms that may contribute to outcomes when EPs use DA (Stacey, 2017). In addition, it is hoped that this study will support EPs to adhere to professional guidelines (Health and Care Professions Council, 2023) in terms of their application of theory and evidence in their practice, and embodying the role of 'scientistpractitioner' (Fallon et al., 2010, p. 4).

This study also adds to the existing literature on EP views of DA, and triangulates previous findings (for example Murphy, 2023; Stacey, 2017) with an original sample of EPs. I hope that future research may be able to further develop the initial programme theory and CMO hypotheses, perhaps exploring them in alternative contexts, using different methods for further triangulation, or from the perspectives of a range of stakeholders.

I feel that using a realist evaluation framework has supported this study to have an original contribution to the literature base, by providing a structure and focus on the contexts, mechanisms and outcomes involved in DA. Therefore, I hope that it may have provided another useful example of how a realist evaluation framework

can be used to evaluate areas relevant to EP work to support understanding of how psychological processes may work in real-world practice, as suggested by Matthews (2003).

3.3.3. Contribution to Personal Knowledge and Skill Development

The process of completing this research has enhanced my personal knowledge and skills in several ways. Prior to completing this Doctorate, I had not encountered ontology and epistemology, nor ever considered my personal position. I think perhaps I have previously subconsciously adopted a more positivist position, for example judging research through standards such as bias and generalisability (Varpio et al., 2021), and I wonder whether this is linked to my previous teaching in psychology and experience in primarily quantitative methods. Although exploring theoretical orientations was initially overwhelming, through my experiences on the course in teaching, practice and research, my understanding has developed, and I anticipate that this will continue to evolve. Through this process I feel that I am now able to appreciate how different types of research might fit with different areas, questions and approaches, as well as situating my own position within this.

Throughout this research process my experience and skills in qualitative methodology have greatly developed, from a place of conscious incompetence (Rogers et al., 2013) and minimal prior experience. I found teaching sessions and my own reading helpful in beginning to distinguish between different qualitative methods, and deciding what would be most appropriate for my research. In particular I found it valuable to look at examples in research relating to EP practice, a context that was familiar to me. This allowed me to decide on the most appropriate techniques for my own study. From then on, I found my understanding and confidence with these techniques gradually developed as I worked through the process, towards conscious competence (Rogers et al., 2013), and this will be helpful if I am involved in qualitative research in the future.

My knowledge, understanding and skills in application of realist evaluation methodology have also developed over the course of this research, as this was not something I had previously encountered. The literature on realist evaluation is vast, and at times can seem abstract, therefore determining how I could apply this framework within the pragmatic demands of my research required patience. As a

result of this, I now feel more confident in interpreting and understanding studies that have used this methodology, and could use realist evaluation frameworks to shape future research that I may conduct.

DA is an approach that I use within my practice, and hope to develop further. Through this research process, for example when exploring the literature, interviewing participants and completing data analysis, I have developed my understanding of the theory underpinning DA, and the ways in which it can be applied in practice. I feel that this has allowed me to reflect on my own assessment practices, and I have gained ideas about approaches I would like to use in the future. I am grateful to my participants for sharing their enthusiasm and experiences with me, and I hope that this research may help to inspire and support EPs and TEPs in their practice.

Throughout my academic journey so far, this thesis is the largest piece of work that I have completed and one that has been over 2 years in development. At times, the scale of the project has felt intimidating, particularly alongside other course demands. I have drawn on skills in time-management and planning, particularly in terms of breaking things down into steps and taking these one at a time, rather than thinking too far ahead. I have also needed to show flexibility in being adaptable to changes and new suggestions, and a perseverance to keep going through the more challenging elements of the process. Nearing submission, it feels like a huge achievement.

3.4. Conclusion

This final chapter of the thesis portfolio has provided a reflective and reflexive account of my experiences throughout the research process. I hope that by justifying and reflecting on decisions that I have made, understanding of my research and its implications have been enhanced. I have also endeavoured to illustrate my skills as a reflective and reflexive practitioner by considering how I have influenced this research, and how it has developed my own knowledge and skills. These are competencies which I anticipate to be invaluable in future research I may be involved in, and throughout my practice as a qualified EP.

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Appendices

Appendix A: Literature Searches Completed

Database	Search terms	Seach details
UEA Library (hosted by EBSCO)	"Dynamic assessment" AND ["Educational psychology" OR	Abstract
	"Educational Psychologist" OR "Educational Psychologists"]	Academic journals AND
		Dissertations/ Theses
Scopus	"Dynamic assessment" AND ["Educational psychology" OR	Abstract
	"Educational Psychologist" OR "Educational Psychologists"]	Articles
APA PsycInfo (via EBSCO)	"Dynamic assessment" AND ["Educational psychology" OR	Abstract
	"Educational Psychologist" OR "Educational Psychologists"]	Academic journals and Dissertations
ERIC	"Dynamic assessment" AND ["Educational psychology" OR	Abstract
	"Educational Psychologist" OR "Educational Psychologists"]	
Taylor and Francis Online	"Dynamic assessment" AND ["Educational psychology" OR	Abstract
	"Educational Psychologist" OR "Educational Psychologists"]	
Educational Psychology in	"Dynamic assessment"	All articles
Practice Journal (Taylor and		
Francis Online)		
BPS Explore	"Dynamic assessment"	All periodical articles

Appendix B: Definitions of DA

Table B1Definitions of DA, Partly Reproduced From Stacey (2017)

Definition
'An approach that follows a test-intervene-retest format, and that focuses on
learner modifiability and on producing suggestions for interventions that appear
successful in facilitating improved learner performance. Dynamic assessment also
provides information regarding functional and dysfunctional metacognitive
processes, as well as regarding intensity of intervention involved in producing
change.'
'In offering an individual an assessment task, the assessor is concerned to set the
best possible conditions for the individual, to observe the cognitive strengths and
weaknesses of the individual as they attempt the task, and to use those
observations as feedback to determine the nature and amount of mediation ('the
connecting and enriching link') required to enable the individual to succeed on that
task.'
'Assessments based on adult mediation represent intensive, time-limited
interactions where the assessor is not looking for the average performance of a
child, but is searching for samples of maximal performance as an indication of
his/her ZPD and is also seeking means to help him/her to move through it.'
'A measure that directly assesses the process of learning, by means of adult-child
scaffolded interaction, and examines the child's potential to learn (given
appropriate intervention).
'The term Dynamic Assessment refers to an assessment of thinking, perception,
learning and problem solving by an active teaching process aimed at modifying
cognitive functioning. Dynamic Assessment differs from conventional static tests in
regard to its goals, processes, instruments, test situation and interpretation of
results.'

Reference	Definition
Lauchlan and	'Dynamic Assessment aims to help the child gain a better grasp of the nature of the
Elliott (2001, p.	task, draw upon important cognitive and metacognitive processes and, by
648)	addressing the affective realm, build feelings of competence. As a result, such
	assessment should provide important diagnostic information about the child's ability
	to learn, maintain and transfer new skills.'
Haywood and	'A subset of interactive assessments that includes deliberate and planned
Tzuriel (2002, p.	mediational teaching and the assessment of the effects of that teaching on
40)	subsequent performance.'
Elliott (2003, p.	'An umbrella term used to describe a heterogeneous range of approaches that are
16)	linked by a common element, that is, instruction and feedback are built into the
	testing process and are differentiated on the basis of an individual's performance.'
Lussier and	'Procedure that attempts to modify performance, via examiners' assistance, in an
Swanson (2005,	effort to understand learning potential.'
p. 66)	
Yeomans (2008,	'Dynamic Assessment examines the processes, rather than the products of
p. 105)	learning. It identifies strengths and weaknesses in the process skills or cognitive
	functions of the learner. The unique feature of Dynamic Assessment that
	differentiates it from other major assessment paradigmis that intervention is an
	integral part of the assessment process.'
Lawrence and	'DA provides an assessment of thinking, perception, learning and problem solving
Cahill (2014, p.	using an active teaching process aimed at modifying cognitive functioning It
192)	involves an assessor actively intervening during the course of the task with the goal
	of intentionally inducing changes in the learner's level of functioning.'
Lidz (2014, p.	'A procedure that provides adjustments in response to the response of the learner
296)	to the embedded interventions sufficient to generate useful and meaningful
	recommendations for intervention which promote learner competence. The nature
	of these adjustments provides the content we need for individualised educational
	programs and for monitoring student progress over time.'
Stacey (2017, p.	'Dynamic assessment describes approaches to assessment which focus on
21)	illuminating the cognitive processes and affective factors impacting on a child's
	performance through the child and assessor working together on a task. Integral to
	the assessment is the active role of the assessor in trying to create the optimum

Reference	Definition
	conditions for the child to learn both content needed for the task and more general
	processes that can be applied to both the task and beyond. Working in this way
	allows the assessor to gauge the child's responsiveness to support and to use
	these observations to subsequently inform tailored intervention in the classroom
	which will help the child learn more effectively.'

Appendix C: Studies Reporting DA Outcomes

Table C1Summary of Studies Reporting DA Outcomes

Reference	Methodology (data gathered, DA tasks and analysis method used)	Participants	Suggested Outcomes of DA			
	,		Child	Teacher	EP	Parent
Elliott et al.	Case study	1 EP	Providing an	Teacher gained a more	Clearer identification of	
(1996)			environment which	optimistic view of the	the cognitive processes	
	Sub-test of the CMB		helped the child to	child's learning	underlying the child's	
	requiring sequential		become less	difficulties.	performance.	
	skills		apprehensive of the			
			test situation.	Teacher gained	The opportunity to	
	Reflection of the EP			insights about how	explore affective factors	
	on the case			teaching approaches	contributing to the	
				could be altered to	child's performance.	
				meet the child's needs.		
Birnbaum	Case study.	1 EP		Provided information	Provided information	
and				about progress as a	about progress as a	
Deutsch	Complex Figure			result of repetition, the	result of repetition, the	
(1996)	Drawing.			type of mediation which	type of mediation which	
				supported the child, his	supported the child, his	
	16 word memory			cognitive functions and	cognitive functions and	
	test (LPAD).			affective factors	affective factors	
				impacting on learning	impacting on learning	
				potential.	potential.	

Reference	Methodology (data gathered, DA tasks and analysis method used)	Participants	Suggested Outcomes of DA			
			Child	Teacher	EP	Parent
	Reflection of the EP on the case.					
Freeman and Miller (2001)	Questionnaire and quantitative analysis. Participants given a purpose and two examples of reports based on different types of assessment.	59 SENDCos		DA rated as being more useful than norm-referenced measures understanding students' difficulties and as a basis for future planning for that student.		
Landor et al. (2007)	Semi-structured interviews, although some teachers completed these as questionnaires. Thematic analysis. A range of DA materials including the CATM and CMB, checklists of cognitive functions and affective factors.	14 children and their class teachers	Perceptions of general positive change from children and teachers. Improvement in teaching and learning strategies and in the child's understanding of these strategies.	Perceptions of general positive change from children and teachers. Improvement in teaching and learning strategies and in the child's understanding of these strategies.		

Reference	Methodology (data gathered, DA tasks and analysis method used)	Participants	Suggested Outcomes of DA			
	,		Child	Teacher	EP	Parent
Lauchlan et al. (2007)	Case study. Analogies subtest from the CMB, creation of learning profile with the child. Reflection of the EP	1 EP	Positive changes in the child's confidence, independence and effort. Child was happier to attend school and motivated to repeat the			
	on the case.		DA.			
Wills (2008) Lawrence and Cahill (2014) Note: these studies report the same data so have been presented together.	Semi-structured interviews/ focus groups. Thematic analysis. Standardised DA tools including the CATM, CITM and CMB.	9 children, 8 parents and 7 teachers	DA was described as a positive experience for the child due to being child centred, focused on the process of learning and allowing experience of success and improvement. DA positively impacted upon the child's emotional wellbeing, self-perceptions, self-esteem, self-belief in learning situations, motivation, learning, behaviour and social	DA provides valuable and useful information for teachers, parents and children with Special Educational Needs (SEN). DA encouraged parents and teachers to consider the context around the child and their needs, and their view of the problem shifted from within the child to consideration of the environmental		DA provides valuable and useful information for teachers, parents and children with SEN. DA provided useful information to parents and teachers, and their view of the problem shifted from within the child to consideration of the environmental context and their role within this. This was linked with a more optimistic view of the

Reference	Methodology (data gathered, DA tasks and analysis method used)	Participants	Suggested Outcomes of DA			
			Child	Teacher	EP	Parent
				within this. This was linked with a more optimistic view of the child and their future, demonstrating a holistic impact of DA on the child.		demonstrating a holistic impact of DA on the child.
Stacey (2017)	Case study Semi-structured interviews with EP and SENDCo; structured observations; scrutiny of written information; questionnaire completed by SENDCo pre- and post- the assessment. 'Used a variety of published tests and toys.	1 EP, 1 SENDCo		Impacted upon the beliefs of the SENDCo, and their approach to working with the child. Changes to the child's individual education plan as a result of the DA process.	Challenging assumptions about what might help support the child, reminding them of the child's strengths, and feeling more comfortable with their approach to working with the child.	

Reference	Methodology (data gathered, DA tasks and analysis method used)	Participants	Suggested Outcomes of DA			
			Child	Teacher	EP	Parent
	Pattern-matching					
	logic', based on					
	Miles and Huberman					
	(1994); statistical					
	analysis of					
	quantitative data					
	where appropriate.					

Appendix D: Contexts Hypothesised to Impact DA Outcomes

Table D1Summary of Contexts Hypothesised to Impact DA Outcomes

Reference	Contexts hypothesised to impact DA outcomes
Yeomans (2008)	Factors hypothesised to bridge the gap between assessment and intervention in the context of DA:
Lauchlan and Carrigan	 Using language familiar to school staff when discussing DA. Follow up to assessment involving direct contact with school staff, aiming to explain and discuss the findings of DA and address concerns about the implementation of interventions. Sharing common assessment and intervention goals. Sharing a common curriculum context. Sharing a common language. Focusing on a small number of learning principles. Using a consultation approach alongside DA.
(2013)	The control of the control of the DA
Lidz (2014); Lidz and Haywood (2014)	 Using a consultation approach alongside DA.
Stacey (2017)	Proposed 'best practice' DA activity system: Description EPs should emphasise useful information obtained from DA when promoting and explaining DA to clients. EP services should provide a range of tools for EPs to use when carrying out DA EPs require access to a range of training opportunities. Service managers should support EPs to use DA. Promote use of DA with children with language difficulties, due to concerns around verbal demands of many standardised cognitive assessment. DA should be viewed as a useful tool within a consultative model of practice, including DA being observed or carried out jointly with a person concerned about the child, followed by a joint problem solving session. Involvement of adults in the DA process should be promoted to challenge beliefs about the child's ability and model a mediational teaching style. Services should recognise the importance of their own support for the approach and challenge cultural beliefs held by partners.

Reference	Contexts hypothesised to impact DA outcomes				
	 EPs should embrace their professional judgement, and capacity for decision making and choice within their DA practice Time required for EPs to develop the skills needed to carry out DA should be recognised and supported through CPD. EPs need to develop a wider range of tools for assessment and recording, sharing ideas within the profession will support with this. EPs should develop tools which allow recording of observations and thoughts whilst leading the assessment. 				

Appendix E: Process of Template Analysis

Stage 1: Development of A Priori Coding Template

Table E1

A Priori Coding Template

Contexts	Mechanisms	Outcomes
1a - Involving school staff in the DA process	2a – School staff understanding and perceptions of CYP needs	3a – Environmental changes made by school staff
1b – Use of DA in certain situations	2b – CYP experience of the DA	3b - CYP changes their perception of themselves and their learning
1c – Service level factors such as resources, support and time available to EPs	2c – EP understanding of cognitive and affective learning factors impacting the CYP	3c – EP has a clearer view of CYP strengths and needs
1d – Resources used by individual EPs in DA	2d – EP willingness to use DA	3d – Longer term positive outcomes for CYP
1e – Perceptions around different kinds of assessment		

 Table E2

 A Priori Coding Template With Literature References

Context/ Mechanism/ Outcome	Link to a priori template	Description	References
Context	1a	Involving school staff in the DA process.	Yeomans (2008); Stacey (2017)
Context	1a	Using familiar and accessible language when discussing DA with school staff.	Yeomans (2008)

Context/ Mechanism/ Outcome	Link to a priori template	Description	References	
Context	1a	Using consultation as part of DA.	Lauchlan and Carrigan (2013); Liz (2014); Lidz and Haywood (2014); Stacey (2017)	
Context	1b	Use of DA for CYP with certain needs where standardised assessment may be less appropriate.	Stacey (2017); Minks et al. (2020)	
Context	1c	EPs have the training and resources (including time and support) required to carry out DA competently.	Stacey (2017); Deutsch and Reynolds (2000); Kennedy (2006); Murphy (2023); Stringer et al. (1997)	
Context	1d	Tools for EPs to support assessment and recording of observations and thoughts.	Stacey (2017); Deutsch and Mohammed (2008); Lauchlan and Carrigan (2013)	
Context	1e	Perceptions and view around different kinds of assessment.	Deutsch and Reynolds (2000); Hymer et al. (2002); Murphy (2023); Atfield et al. (2023)	
Mechanism	2a	School staff change their perceptions of the CYP's needs.	Stacey (2017); Wills (2008); Lawrence and Cahill (2014)	
Mechanism	2a	School staff increase their understanding of the CYP's needs.	Elliott et al. (1996); Birnbaum and Deutsch (1996); Deutsch and Reynolds (2000); Freeman and Miller (2001)	
Mechanism	2a	School staff have a more optimistic view of the CYP.	Elliott et al. (1996); Wills (2008); Lawrence and Cahill (2014)	
Mechanism	2b	CYP less apprehensive of the test situation	Elliott et al. (1996)	
Mechanism	2b	CYP experiences success.	Wills (2008); Yeomans (2008)	
Mechanism	2b	DA is child-centred, can be responsive to CYP's needs.	Wills (2008); Murphy (2023)	
Mechanism	2b	Children are involved in the follow up to the assessment.	Lauchlan and Carrigan (2013); Landor et al. (2007)	
Mechanism	2b	DA positive experience for the CYP.	Wills (2008); Atfield et al. (2023)	

Context/ Mechanism/ Outcome	Link to a priori template	Description	References
Mechanism	2c	EP gains information about the cognitive and affective factors impacting the CYP's learning.	Elliott et al. (1996)
Mechanism	2d	EPs feel comfortable in their approach working with the CYP.	Stacey (2017); Murphy (2023)
Mechanism	2d	EP feels supported by their service to complete DA.	Stacey (2017)
Outcome	3a	School staff make environmental changes to support the CYP's needs.	Elliott et al. (1996); Landor et al. (2007); Stacey (2017)
Outcome	3b	CYP's understanding of learning strategies increased.	Landor et al. (2007)
Outcome	3b	CYP self-perceptions are impacted.	Lauchlan et al. (2007); Wills (2008); Lawrence and Cahill (2014); Deutsch and Reynolds (2000)
Outcome	3c	EP has a clearer view of the CYP's strengths and needs, to inform intervention recommendations.	Elliott et al. (1996)
Outcome	3d	Positive outcomes for CYP (independence, effort, happier to attend school, emotional wellbeing, learning behaviour, social relationships, motivation).	Landor at al. (2007); Lauchlan et al. (2007); Wills (2008); Lawrence and Cahill (2014)

Stage 2: Initial Coding

Example Transcript Extract

Researcher 5:39

Yeah.

And so in terms of those outcomes of dynamic assessment, what would you say that they are for?

I guess you think of it sort of for the child and then for the teacher maybe.

And also for yourself.

What what's the result of that process?

Participant 2 5:59

I think for the child it would definitely be a positive.

Hopefully a positive experience and it's interesting.

I've just had a student, ohh she just finished today and she's had a go at some dynamic assessment and I think one of her core erm competencies is that, yeah, was to do a standardized assessment and and just thinking about how using both of those tools left her feeling and left maybe hypothesize about how the pupil, the student might have felt from that was really interesting exercise to do.

But erm yeah, usually.

Well, dynamic assessment is is positive.

The child's made progress, erm so it's a positive experience for the child.

It may hopefully give the child a bit of insight to how they learn and um how they approach tasks erm.

Yeah, and I think for some I do tend to invite sort an adult in to observe the mediation.

Whether or not that always happens is um depend is depending on if the teacher can leave the class etcetera.

But again, it's just thinking about how to approach a task, and most of the time they're quite sort of "wow, they've done it" and it's that opportunity to observe, I think is quite erm a positive one in itself.

But yeah, and you, you're looking at the cognitive abilities of the child as well.

So hopefully a bit of an insight on how they learn and how to support their learning going forward, I think.

Researcher 7:51

That'd be an outcome for you or for the teacher, or both, yeah.

Participant 2 7:57

Hopefully both.

But yeah, yeah.

For me as well, it gives me an insight into to what works and some of their cognitive strengths and areas that may need supporting so.

Researcher 8:01

Do you tend to like, do you share the key information with teachers at all? I guess sometimes they come and observe as a.

Participant 2 8:22

I try to or.

It would either be the teacher or the SENCo, depending on.

Obviously if the teacher's teaching it's sometimes quite awkward to feedback at that point, erm and I'll put it in the report.

I'll umm, err try to phrase my reports around sort of erm, mediation strategies What's helped

And strengths as well.

So. Which isn't always that helpful if it needs to go to panel [laughter].

But umm yeah.

Researcher 8:56

Umm yeah.

So sometimes the teachers get that verbal feedback, sometimes it's reports, sometimes they're there.

Yeah.

And I suppose

Do you think?

Yeah, there are any more outcomes in terms of for that teacher like, I wonder what could make that, is there a difference that's made as a result of them observing, and why that might be?

Participant 2 9:23

Do you know, I've never sort of followed that up and that that would be a really good thing to do erm.

I suppose I'm, I'm just hoping that they'll take on board.

I think as well it shows that sometimes just a small tweak or small amount of support can make quite a big difference, especially if we're thinking metacognitively, and and looking at those cognitive skills erm, rather than focusing on delivering content, which I think a teacher may be more inclined to do.

I think it's looking at those skills based stuff and that metacognitive stuff, and, hopefully that makes a difference.

Researcher 10:07

Yeah.

And yeah, going back when you spoke about those, the outcomes for the child and in terms of it being a positive experience, I'm wondering if you could like talk a bit more about that and maybe what it is about dynamic assessment that allows that compared to maybe you mentioned, like compared it to a standardized assessment?

Participant 2 10:36

I suppose it's that errorless learning.

I suppose is a term we use in [Local Authority], isn't it?

And other places as well.

But it's that it's that your, you do it together, so the child isn't failing where they do in standardized assessments you have to.

I can't even remember how many they have to fail at five before you end the task,

and they're not daft.

They know when they've not got it right, they they're um.

Yeah.

And how demoralizing is that?

To sort of be faced with all these five questions that you can't answer.

And so yeah, I think I think it's a lot more strength based what you can do.

I try to, try to make it very explicit what I think are positives in their learning and how they've done, done things and how it's changed.

We compare the before and after and and think about what made the difference.

So, what was it that we did differently?

And I think it's that collaboration that's really sort of, I think you start off with the mediation and then it's kind of sitting back and letting them use the strategies you've mediated to to maybe finish the task or complete the next task.

And yeah, I'm just thinking about the CAT-M and thin-

Yeah.

So you'd mediate one and then they test again.

So yeah, they then get to do it by themselves umm independently.

Researcher 12:26

Yeah, no that's interesting.

And like for yourself, you were talking about the outcomes as like getting that exploration of cognitive skills, err but also like the mediation skills.

What?

What's kind of going on when you're doing it?

What are you sort of thinking about and what is it about the dynamic assessment that's helping develop that understanding for you?

Participant 2 12:46

So I think I use umm it's a tick sheets probably a good thing.

So it's got a list of all the cognitive abilities and cognitive skills so around input, elaboration and output.

Erm and I might do that immediately.

Sort of during might do it during or and so immediately afterwards and that helps me think about the mediation techniques.

And umm yeah, that kind of frames my thinking erm yeah, and that mediated.

I don't know how many elements of mediated learning.

So, you, you are thinking erm about what needs to be put in place for them, the mediated learning and the Feuerstein stuff and that kind of models my thinking as well.

What what elements of that were really important and was it the relationship? Was it the umm visuals?

Was it was what element of it helped scaffold if that makes sense as well?

Researcher 13:54

And are there any other outcomes for you in terms of, I suppose it comes back to like why you're using dynamic assessment and what that kind of in terms of like your practice, how does that fit?

Participant 2 14:12

Yeah, I think it's for me.

It's quite an ethical outcome.

I think erm some of the standardized assessments is kind of general knowledge and umm you either know it or you don't know and it just to me, it's not necessarily a sign of a lack of intelligence, especially some of the verbal stuff, is.

I, I'm just thinking of vocabulary based stuff and even the you have to know what the words mean for to do the similarities assessment.

That's very much based on your life experiences erm and whereas dynamic assessment isn't so much.

So I've worked over the years in in quite deprived areas erm yeah, and it's more about you're looking at potential as well rather than a static measure of what they know and what they don't know and what they can do at that point in time.

And I think for me, with standardized assessments.

You're not telling the school or parents anything.

They don't already know, cause they'll know if there's a memory problem or their

verbal skills aren't great, but I think the co- dynamic assessment stuff that's gained is more insightful.

It's more positive to feedback to parents as well, and to to school staff, so it's a more positive outcome as an EP and I think that's what we're trained to do is to think about next steps and ways forward rather than which the cognitive assessment type things don't give us.

Researcher 15:44

Yeah, no that's interesting.

And you mentioned I outcomes for parents, which is sort of something that I've seen a bit about.

But yeah, so I'm wond- I don't know if you've got any experience of like feeding back to parents or do you think it impacts them at all?

Participant 2 16:21

Yeah.

And I think as a parent myself.

I just think it's the language we use, erm it's not a deficit model.

It's a very strength based model erm so you're starting, it's a lot more positive about things that will support erm and especially if it's things that they can do at home as well.

And it's just small twinges of how erm how we can work with that child.

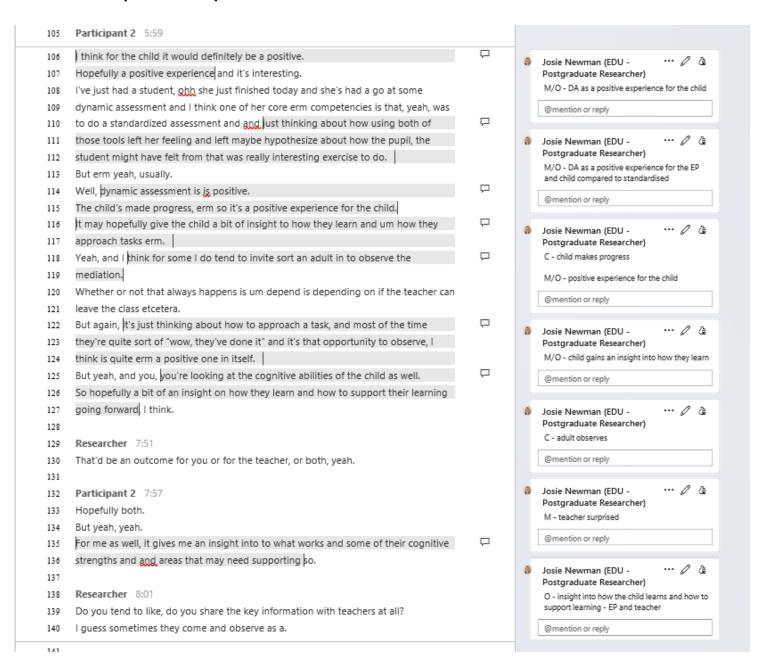
I think is a lot more positive and constructive is probably the right word.

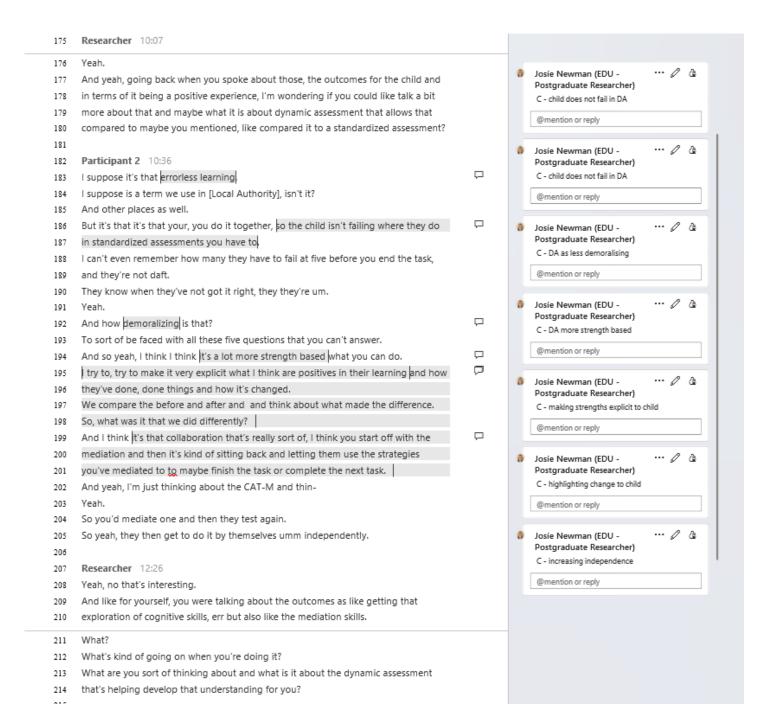
Than giving them lots of numbers and saying they're at the first percentile compared to 100.

Yeah, it's quite personal, yeah.

And it I think it shows maybe a more person centered erm approach as well.

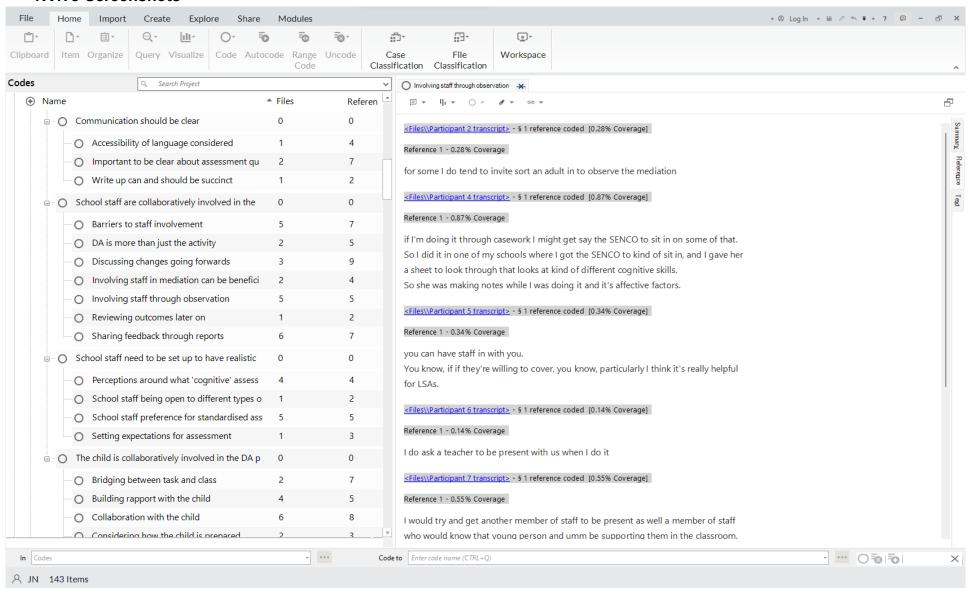
Example Transcript Extracts with Familiarisation Notes in the Comments

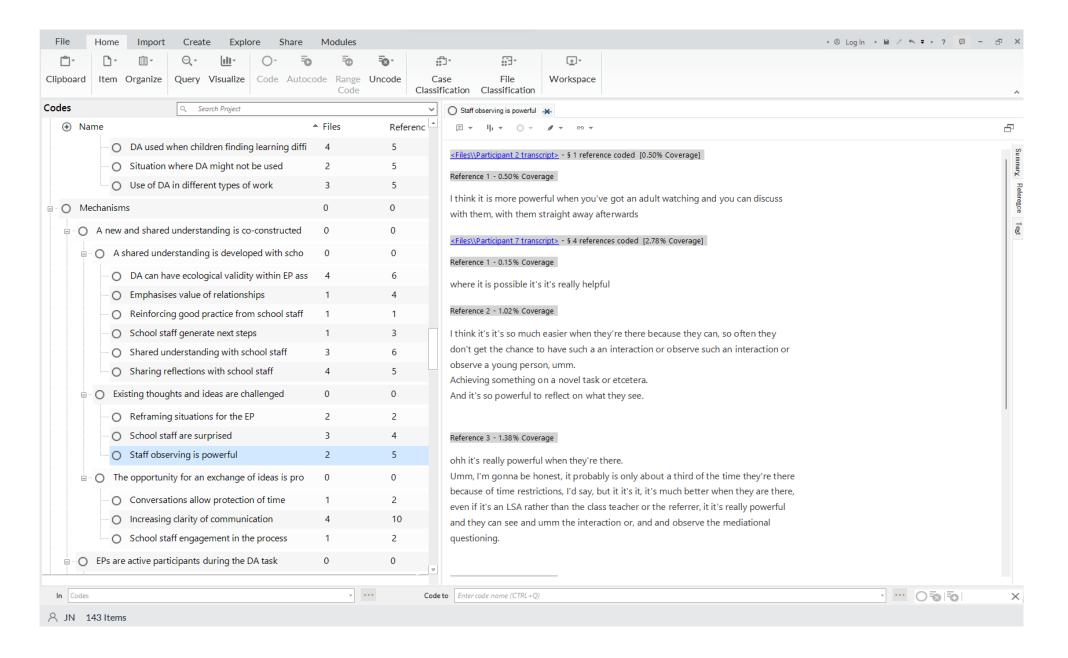


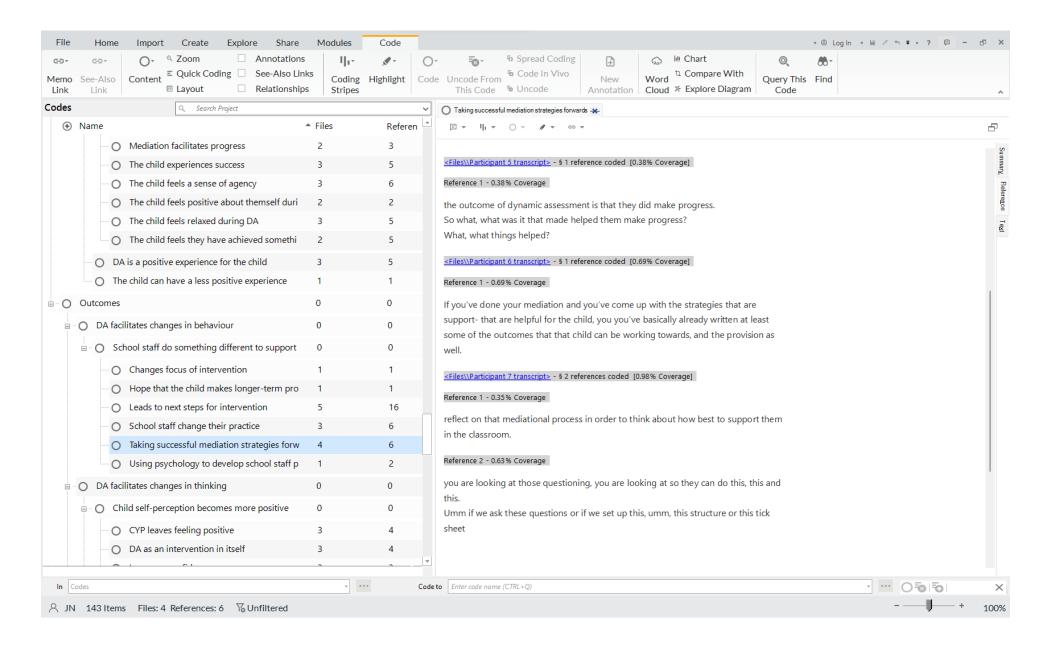


232	Researcher 13:54			
233	And are there any other outcomes for you in terms of, I suppose it comes back to like			
234	why you're using dynamic assessment and what that kind of in terms of like your			
235	practice, how does that fit?		8	Josie Newman (EDU / &
236				Postgraduate Researcher)
237	Participant 2 14:12			O - EP feeling ethically sound
238	Yeah, I think it's for me.			@mention or reply
239	t's quite an ethical outcome.	\Box		-
240	I think erm some of the standardized assessments is kind of general knowledge and	\Box	8	Josie Newman (EDU / &
241	umm you either know it or you don't know and it just to me, it's not necessarily a			Postgraduate Researcher)
242	sign of a lack of intelligence, especially some of the verbal stuff, is.			C - DA not based on life experiences
243	l, I'm just thinking of vocabulary based stuff and even the you have to know what the			@mention or reply
244	words mean for to do the similarities assessment.			
245	That's very much based on your life experiences erm and whereas dynamic			
246	assessment isn't so much.			
247	So I've worked over the years in in quite deprived areas erm yeah, and it's more	\Box	0	Josie Newman (EDU / &
248	about you're looking at potential as well rather than a static measure of what they			Postgraduate Researcher)
249	know and what they don't know and what they can do at that point in time.			C - DA more appropriate in deprived areas?
250	And I think for me, with standardized assessments.	\Box		@mention or reply
251	You're not telling the school or parents anything.			C
252	They don't already know, cause they'll know if there's a memory problem or their		9	Josie Newman (EDU / &
253	verbal skills aren't great but I think the co-bynamic assessment stuff that's gained is	\Box		Postgraduate Researcher)
254	more insightful.			O - standardised assessments don't lead to new information
255	t's more positive to feedback to parents as well, and to to school staff, so it's a more	\Box		
256	positive outcome as an EP and think that's what we're trained to do is to think	\Box		@mention or reply
257	about next steps and ways forward rather than which the cognitive assessment type			
258	things don't give us.		0	Josie Newman (EDU - " (2) (2) Postgraduate Researcher)
259				O - DA provides insight
260	Researcher 15:44			@mention or reply
261	Yeah, no that's interesting.			S
262	And you mentioned I outcomes for parents, which is sort of something that I've seen		9	Josie Newman (EDU / 💪
263	a bit about.			Postgraduate Researcher)
264	But yeah, so I'm wond- I don't know if you've got any experience of like feeding back			O - DA has more positive outcomes
265	to parents or do you think it impacts them at all?			@mention or reply
266				
267	Participant 2 16:21		0	Josie Newman (EDU / 🕹
268	Yeah.			Postgraduate Researcher)
269	And I think as a parent myself.			O - leads to next steps
270	just think it's the language we use, erm it's not a deficit model.	\Box		@mention or reply

NVivo Screenshots







Stage 3: Coding Template After Initial Coding

Contexts

- Accessibility of language considered
- Bridging between task and class
- Building rapport with the CYP
- Checklists utilized by EPs
- DA as specialist to psychologists
- DA can be embedded in different areas of practice
- DA looks at potential of CYP
- DA used frequently
- · Definitions of DA
 - DA as a cognitive assessment
 - DA can be defined in different ways
 - More formal DA
 - More general DA
- Ending on success
- EP confidence to do DA
- EP needs to be in the right place
- EP preference for DA
- Frequency of DA use
- Important to be clear about assessment questions
- Involving school staff in the DA process
 - o Barriers to staff involvement
 - DA is more than just assessment
 - o Involving staff in mediation can be helpful
 - Involving staff through observation
 - Monitoring of outcomes is important
 - Reflections on observations and how they can be generalised with school staff
 - Reviewing outcomes
 - Setting expectations for assessment
 - Sharing feedback through reports
 - Staff observing is powerful
 - Working with staff to develop practice
- Involving the CYP in the DA process
 - o Collaboration with the CYP
 - Reflecting on strengths and success with the CYP
 - Reflecting on successful mediation with the CYO
 - Written feedback for CYP
- Mediation
 - Considering impact of mediation
 - Considering mediation needed

- Considering successful mediation
- Definitions of mediation
- Different levels of mediation
- Mediation as fundamental to DA
- Repetition as mediation
- Perceptions around what 'cognitive' assessment means
- Philosophy of DA is important
 - Comparison to standardised assessment
 - o DA is holistic
 - Solution focused
 - Strengths-based
- Practice in DA as helpful
- Preparing CYP for involvement
- Right levels of challenge
- School staff being open to different types of assessment
- School staff preference for standardised
- Service level factors impacting DA use
 - o Culture
 - Impact of supervision
 - Sharing DA practice with other EPs
 - Systemic pressure to complete standardised assessment
 - Time as a barrier to DA use
 - Training as influential in assessment choice
- Task choice as important
- Task choice linked to assessment question
- Use of DA in certain situations
 - Approach to learning questions can be answered using DA
 - DA appropriate for certain assessment questions
 - DA appropriate when difficulties already known
 - DA appropriate when looking for strategies
 - DA as default practice
 - DA as part of triangulation
 - o DA can be used when CYP has medical needs
 - o DA helpful for CYP with SEMH needs
 - o DA helpful when low scoring in standardised assessments
 - o DA used when CYP finding things difficult
 - Situation where DA might not be used
 - Use of DA in different types of work
- Use of named task
- Using similar tasks
- Write up can and should be succinct

Mechanisms

- Collaboration with school staff
- Conversations allow protection of time
- CYP experience of DA
 - CYP can attribute success to external factors
 - CYP experiences success
 - o CYP feels they have achieved something
 - CYP feels a sense of agency
 - o CYP feels positive about themselves during DA
 - CYP feels relaxed during DA
 - DA as a therapeutic process
 - DA is a positive experience for CYP
 - DA is meaningful to CYP
 - DA is motivating
- DA as a particular 'space'
- DA can be generalised to the classroom
- DA generalisation can be limited
- Emphasises values of relationships
- EP mental processes
 - A lot to think about during DA
 - o DA deepens EP thinking
 - Keeping cognitive principles in mind
 - Noticing how the CYP interacts with the task
 - Noticing what has helped the CYP
 - Reframing situations for the EP
- EP understanding of cognitive and affective learning factors
- Increasing clarity of communication
- Mediation allows progress
- Reinforcing good practice from school staff
- School staff are surprised
- School staff change their perception of CYP needs
- School staff increase understanding of the CYP's learning processes
- Shared understanding with school staff
- Using psychology to develop school staff practice more generally

Outcomes

- Acknowledge difficulties
- Acknowledge strengths
- Aways get something useful
- Changes focus of intervention
- Changing the narrative around a CYP
 - Changing the narrative around a CYP's ability to make progress

- Increasing hope
- CYP changes their perception of themselves and their learning
 - CYP approach to learning changed
 - o CYP increases understanding of their learning
 - Increases confidence
- CYP leaves feeling positive
- CYP makes longer-term progress
- DA as an intervention in itself
- DA gives more new information than standardised
- Easy to identify targets (outcomes) for CYP
- EP feels work is ethical
- Leads to next steps for intervention
- Longer-term outcomes less known
- Outcomes hard to evaluate in current professional context
- Positive for parents
- School staff change their practice
- School staff generate next steps
- Supports EP formulation around a CYP
- · Taking successful mediation strategies forward

Stage 4: Coding Template After Grouping into Clusters

Contexts

Involving others in DA

- Involving school staff in the DA process
 - Barriers to staff involvement
 - o DA is more than just assessment
 - o Involving staff in mediation can be helpful
 - Involving staff through observation
 - Reflections on observations and how they can be generalised with school staff
 - Reviewing outcomes
 - Sharing feedback through reports
 - Staff observing is powerful
- Involving the CYP in the DA process
 - Collaboration with the CYP
 - Reflecting on strengths and success with the CYP
 - o Reflecting on successful mediation with the CYP
 - Written feedback for CYP
 - o Building rapport with the CYP
 - Bridging between task and class
 - Preparing CYP for involvement
- Quality of communication
 - Accessibility of language considered
 - o Important to be clear about assessment questions
 - Write up can and should be succinct
- · Perceptions of others around DA
 - o School staff being open to different types of assessment
 - School staff preference for standardised
 - o Perceptions around what 'cognitive' assessment means
 - Setting expectations for assessment

Why DA is or is not used

- Use of DA in certain situations
 - Approach to learning questions can be answered using DA
 - o DA appropriate for certain assessment questions
 - o DA appropriate when difficulties already known
 - DA appropriate when looking for strategies
 - DA can be used when CYP has medical needs
 - DA helpful for CYP with SEMH needs
 - DA used when CYP finding things difficult
 - Situation where DA might not be used
 - Use of DA in different types of work

- Individual EP factors impacting use of DA
 - o EP confidence to do DA
 - o EP needs to be in the right place
 - o EP preference for DA
 - o Frequency of DA use
 - Practice in DA as helpful
 - o Training as influential in assessment choice
 - Support of other EPs
- Service level factors impacting DA use
 - Systemic pressure to complete standardised assessment
 - o Time as a barrier to DA use
- Philosophy of DA is important
 - Comparison to standardised assessment
 - DA is holistic
 - Strengths-based
 - o Ending on success
 - DA looks at potential of CYP
 - DA as specialist to psychologists

The practicalities of DA

- How DA is used by EPs
 - o DA can be embedded in different areas of practice
 - DA used frequently
 - o DA as default practice
 - DA as part of triangulation
- Tasks and resources used in DA
 - Checklists utilised by EPs
 - Right levels of challenge
 - Use of named task
 - Task choice linked to assessment question
 - Task choice as important
 - Using similar tasks
- Definitions of DA
 - DA as a cognitive assessment
 - DA can be defined in different ways
 - More formal DA
 - More general DA
- Mediation
 - Different levels of mediation
 - Mediation as fundamental to DA
 - o Definitions of mediation
 - o Repetition as mediation

Mechanisms

EP experiences

- Things to notice during DA
 - Considering impact of mediation
 - o Considering mediation needed
 - Considering successful mediation
 - Noticing how the CYP interacts with the task
 - Noticing what has helped the CYP
- EP mental processes
 - A lot to think about during DA
 - DA deepens EP thinking
 - o Keeping cognitive principles in mind
 - Reframing situations for the EP
 - EP understanding of cognitive and affective learning factors

Experiences of others

- CYP experience of DA
 - CYP can attribute success to external factors
 - CYP experiences success
 - CYP feels they have achieved something
 - CYP feels a sense of agency
 - CYP feels positive about themselves during DA
 - CYP feels relaxed during DA
 - DA as a therapeutic process
 - DA is a positive experience for CYP
 - DA is meaningful to CYP
 - DA is motivating
 - Mediation allows progress
 - DA as a particular 'space'
- School staff processes
 - Collaboration with school staff
 - o Emphasises values of relationships
 - Reinforcing good practice from school staff
 - School staff are surprised
 - School staff change their perception of CYP needs
 - School staff increase understanding of the CYP's learning processes
 - Using psychology to develop school staff practice more generally
- Sharing ideas
 - Conversations allow protection of time
 - Increasing clarity of communication
 - Shared understanding with school staff

2

Ecological validity

- o DA can be generalised to the classroom
- DA generalisation can be limited

Outcomes

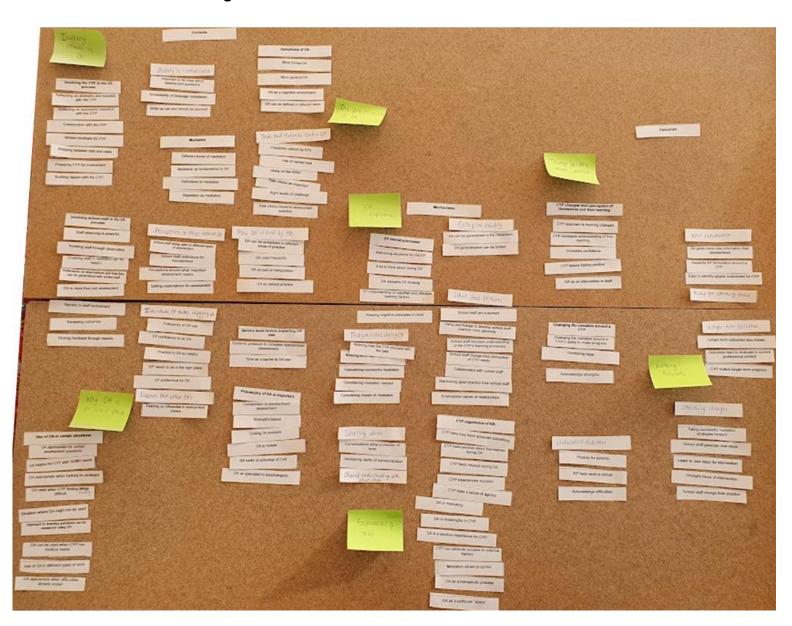
Things become more positive

- Changing the narrative around a CYP
 - Changing the narrative around a CYP's ability to make progress
 - Increasing hope
 - Acknowledge strengths
- CYP changes their perception of themselves and their learning
 - CYP approach to learning changed
 - o CYP increases understanding of their learning
 - Increases confidence
 - CYP leaves feeling positive
 - DA as an intervention in itself

Looking forwards

- New information
 - Aways get something useful
 - DA gives more new information than standardised
 - Easy to identify targets (outcomes) for CYP
 - Supports EP formulation around a CYP
- Something changes
 - Changes focus of intervention
 - Leads to next steps for intervention
 - Taking successful mediation strategies forward
 - School staff change their practice
 - School staff generate next steps
- Longer term outcomes
 - o Longer-term outcomes less known
 - Outcomes hard to evaluate in current professional context
 - CYP makes longer-term progress
- Unclassified outcomes
 - Acknowledge difficulties
 - EP feels work is ethical
 - Positive for parents
 - o Child can have less positive experience

Manual Clustering of Codes



Stage 5: Coding Template After Reapplying and Further Development Contexts

The EP needs others to be on board with the DA process

- Others should be active collaborators throughout the DA process
 - Barriers to staff involvement
 - DA is more than just the activity
 - o Involving staff in mediation can be helpful
 - Involving staff through observation
 - Sharing reflections with school staff
 - Discussing changes going forwards
 - Reviewing outcomes
 - Sharing feedback through reports
 - Staff observing is powerful
 - o Collaboration with the CYP
 - Reflecting on strengths and success with the CYP
 - Reflecting on successful mediation strategies with the CYP
 - Written feedback for CYP
 - Building rapport with the CYP
 - Bridging between task and class
 - Preparing CYP for involvement
- Quality of communication is important
 - Accessibility of language considered
 - o Important to be clear about assessment questions
 - Write up can and should be succinct
- Perceptions of others around DA can impact outcomes
 - School staff being open to different types of assessment
 - School staff preference for standardised
 - o Perceptions around what 'cognitive' assessment means
 - Setting expectations for assessment

The use of DA is an active decision made by the EP within a system

- The context of the work may impact whether DA is appropriate
 - Approach to learning questions can be answered using DA
 - DA appropriate for certain assessment questions
 - DA appropriate when barriers to learning already known
 - DA appropriate when looking for strategies
 - DA can be used when CYP has medical needs
 - o DA helpful for CYP with SEMH needs
 - DA used when CYP finding things difficult
 - Situation where DA might not be used
 - Use of DA in different types of work
- EP use of DA can be facilitated in certain situations

- EP confidence to do DA
- EP needs to be in the right place
- Practice in DA as helpful
- o Training as influential in assessment choice
- Sharing practice with other EPs
- Systemic pressure to complete standardised assessment
- o Time as a barrier to DA use
- EPs can believe in the philosophy of DA
 - Comparison to standardised assessment
 - o DA is holistic
 - o Strengths-based
 - Ending on success
 - DA looks at potential of CYP
 - DA as specialist to psychologists
 - o EP preference for DA
 - o DA feels ethical to the EP

DA theory can be applied in different ways by EPs in practice

- DA becomes embedded in EP practice
 - DA can be used in different areas of EP practice
 - DA used frequently
 - o DA as default practice
 - o DA as part of triangulation
 - Frequency of DA use
- EPs choose to use certain tasks and resources in DA
 - Checklists utilised by EPs
 - Use of certain tasks
 - Task choice linked to assessment question
 - Task choice linked to level of challenge for the CYP
 - Using similar tasks
- Definitions of DA may impact how it is applied
 - DA as a cognitive assessment
 - DA can be defined in different ways
 - More formal DA
 - More general DA
- Theory of mediation is applied by EPs in DA
 - Different types of mediation
 - Mediation as fundamental to DA
 - Definitions of mediation

Mechanisms

EPs are active participants during the DA task

Considering impact of mediation

- Considering mediation needed
- Considering successful mediation
- Noticing how the CYP interacts with the task
- Noticing what has helped the CYP
- A lot to think about during DA
- Keeping cognitive principles in mind
- Reframing situations for the EP
- o EP understanding of cognitive and affective learning factors

CYP positive experience acts as a mechanism in DA

- CYP can attribute success to external factors
- CYP experiences success
- CYP feels they have achieved something
- CYP feels a sense of agency
- CYP feels positive about themselves during DA
- CYP feels relaxed during DA
- DA as a therapeutic process
- Child can have less positive experience
- DA is a positive experience for CYP
- DA is motivating
- Mediation facilitates progress
- DA as a particular 'space'

Exchange of ideas with school staff act as a mechanism in DA

- Collaboration with school staff
- Emphasises values of relationships
- Reinforcing good practice from school staff
- School staff are surprised
- Conversations allow protection of time
- Increasing clarity of communication
- Shared understanding with school staff
- DA can have ecological validity within EP assessment

Outcomes

DA facilitates changes in thinking

- DA changes the narrative around a CYP
 - Changing the narrative around a CYP's ability to make progress
 - Increasing hope
 - Positive for parents
 - Acknowledge difficulties
 - o School staff change their perception of CYP needs
 - Acknowledge strengths
- CYP feels positive after the DA task

- o Increases confidence
- o CYP leaves feeling positive
- o DA as an intervention in itself
- DA leads to new information
 - Aways get something useful
 - o DA gives more new information than standardised
 - Easy to identify targets (outcomes) for CYP
 - School staff generate next steps
 - o CYP increases understanding of their learning
 - School staff increase understanding of the CYP's learning processes
 - Supports EP formulation around a CYP

DA facilitates changes in behaviour

- o Changes focus of intervention
- Leads to next steps for intervention
- o Taking successful mediation strategies forward
- School staff change their practice
- Using psychology to develop school staff practice more generally
- Hope that CYP makes longer-term progress

Longer term outcomes are difficult to evaluate

- o Longer-term outcomes are less known
- Outcomes hard to evaluate in current professional context

Stage 6: Final Coding Template

Contexts

The EP needs others to be on board with the DA process

- School staff are collaboratively involved in the DA process
 - Barriers to staff involvement
 - DA is more than just the activity
 - o Involving staff in mediation can be helpful
 - Involving staff through observation
 - Discussing changes going forwards
 - Reviewing outcomes later on
 - Sharing feedback through reports
- The child is collaboratively involved in the DA process
 - Collaboration with the child
 - Reflecting on strengths and success with the child
 - o Reflecting on successful mediation strategies with the child
 - o Written feedback for the child
 - Building rapport with the child
 - Bridging between task and class
 - Considering how the child is prepared
- Communication should be clear
 - Accessibility of language considered
 - Important to be clear about assessment questions
 - Write up can and should be succinct
- School staff need to be set up to have realistic expectations of DA
 - School staff being open to different types of assessment
 - School staff preference for standardised assessment
 - Perceptions around what 'cognitive' assessment means
 - Setting expectations for assessment

The use of DA is an active decision made by the EP within a system

- The context of the work impacts whether DA is appropriate
 - Approach to learning questions can be answered using DA
 - DA appropriate for certain assessment questions
 - o DA appropriate when barriers to learning already known
 - DA appropriate when looking for strategies
 - DA can be used when the child has medical needs
 - DA helpful for children with SEMH needs
 - o DA used when the child is finding things difficult
 - Situation where DA might not be used
 - DA as part of triangulation
 - Use of DA in different types of work
- EP use of DA is facilitated in certain situations

- EP confidence to do DA
- o EP needs to be in the right place
- Practice in DA as helpful
- o Training as influential in assessment choice
- Sharing practice with other EPs
- Systemic pressures to complete standardised assessment
- o Time as a barrier to DA use
- EPs believe in and apply the philosophy of DA
 - o Comparison to standardised assessment
 - o DA is holistic
 - o Strengths-based
 - o Ending on success
 - DA looks at potential of the child
 - DA as specialist to psychologists
 - EP preference for DA
 - o DA feels ethical to the EP

DA theory can be applied in different ways by EPs in practice

- DA becomes embedded in EP practice
 - o DA is used across EP practice
 - o DA used frequently
- EPs choose to use certain tasks and resources in DA
 - EPs use checklists to structure DA
 - Use of certain tasks
 - Task choice linked to assessment question
 - Task choice linked to level of challenge for the child
 - Using similar tasks
- Definitions of DA may impact how it is applied
 - DA is a cognitive assessment
 - DA can be defined in different ways
 - DA can be more formal
 - DA can be more general
- Theory of mediation is applied by EPs in DA
 - Different types of mediation
 - Mediation as fundamental to DA
 - Definitions of mediation

Mechanisms

EPs are active participants during the DA task

- EPs actively consider and adapt mediation to the needs of the child
 - Considering impact of mediation
 - o Considering mediation needed

- A lot to think about during DA
- EPs make observations and link these to existing theory
 - Considering successful mediation
 - Noticing how the child interacts with the task
 - Keeping cognitive principles in mind

The child has a positive experience during the DA task

- The child can have a less positive experience
- DA is a positive experience for the child
- An environment is created that supports the child to experience autonomy and competence
 - The child experiences success
 - The child feels they have achieved something
 - The child feels a sense of agency
 - DA is motivating
 - DA as a therapeutic process
 - o The child feels relaxed during DA
 - Mediation facilitates progress
 - The child feels positive about themselves during DA

A new and shared understanding is co-constructed

- Existing thoughts and ideas are challenged
 - School staff are surprised
 - Staff observing is powerful
 - Reframing situations for the EP
- The opportunity for an exchange of ideas is provided
 - Conversations allow protection of time
 - Increasing clarity of communication
 - School staff engagement in the process
- A shared understanding is developed with school staff
 - Shared understanding with school staff
 - Sharing reflections with school staff
 - o DA can have ecological validity within EP assessment
 - Emphasises values of relationships
 - School staff generate next steps
 - Reinforcing good practice from school staff

Outcomes

DA facilitates changes in thinking

• The narrative around the child becomes more hopeful

- Changing the narrative around a child's ability to make progress
- Increasing hope
- Positive for parents
- Acknowledging difficulties
- o School staff change their perception of the child's needs
- Recognising strengths
- Child self-perception becomes more positive
 - o Increases confidence
 - o The child leaves feeling positive
 - o DA as an intervention in itself
- Understanding of factors impacting learning for the child is increased for the child, school staff and the EP
 - The child increases understanding of their learning
 - School staff increase understanding of the child's learning processes
 - Supports EP formulation around a child's needs
 - EP understanding of cognitive and affective learning factors impacting the child increased
 - Aways get something useful
 - DA gives more new information than standardised
 - o Easy to identify targets (outcomes) for the child

DA facilitates changes in behaviour

- School staff do something different to support the child
 - Changes focus of intervention
 - Leads to next steps for intervention
 - Taking successful mediation strategies forward
 - School staff change their practice
 - Using psychology to develop school staff practice more generally
 - Hope that the child makes longer-term progress

Longer term outcomes are difficult to evaluate in the current professional context

Appendix F: Semi-Structured Interview and Focus Group Schedules

Educational Psychologist Interview Schedule

Thank you for agreeing to be part of this research. I would like to remind you that participation is voluntary. You can refuse to answer any questions you do not wish to. You are free to withdraw at any point up to the point until your data is fully anonymised.

Just a reminder that the purpose of this interview is to explore how, why and when EP use of DA has a positive impact, so thinking about the outcomes that occur when EPs use DA, the mechanisms that contribute to these outcomes occurring, and the contexts in which they occur. I will be defining DA as using a mediated activity to explore the factors impacting learning for a young person. I am going to ask you some open questions about DA. You can talk about any example of using DA in your practice.

I will be audio and video recording this interview, if that's okay.

Before I start recording, do you have any questions?

Start recording

How long have you been a qualified Educational Psychologist?

Approximately how long have you been using DA as part of your practice?

How frequently would you say you use DA?

Contexts

Could you tell me about the DA process and what happens? This can include before, during and after the assessment itself.

In which contexts do you use DA, and why do you use it in these contexts, instead of other methods?

What do you want to achieve by using DA?

Outcomes

What do you think the outcomes of DA are? This can include for the CYP, teachers and you.

What do you notice about the child's learning from the assessment? This could include cognitive, affective and motivational processes.

What is the key information shared with teachers, and how is this shared?

Mechanisms

Why/how do you think that outcome occurs?

Which element of DA do you think contributes to that outcome?

Would you describe that outcome as positive?

What do you think about during the assessment?

What do you notice about the child's engagement with the assessment task?

Is there anything else about DA that you feel is important to mention?

Stop recording

Thank you for your time today. If there is anything you would like to talk about, please contact me. Please keep a copy of the participant information sheet and consent form for your records. I am planning to do some further data collection later in the year, but I will let you know about that. The purpose of this would be for me to suggest some of my ideas that have arisen from the first phase of interviews, and see what you think, sort of like 'testing out' my theories.

Focus Group Schedule

Thank you for agreeing to be part of this focus group. I would like to remind you that anything discussed today must remain confidential, with the exception of any safeguarding concerns. You are free to stop participating at any stage or to refuse to answer any of the questions. However, it will not be possible to withdraw your individual comments from our records once the group has started, as it is a group discussion.

As you may remember, the purpose of this research is to explore how, why and when EP use of DA has positive outcomes. I am using a framework based on 'realist evaluation' methodology. From the first round of interviews I've developed some themes in the areas of contexts, mechanisms and outcomes important in DA, and I've developed a tentative theory around how DA might lead to positive outcomes. This is referred to in realist evaluation literature as an initial programme theory. The purpose of this focus group will be to hear your ideas, thoughts and feedback on this theory. I'd be interested to know if there are any parts of this that particularly resonate with you, and whether you can share any examples of when you feel this has occurred in your practice. Similarly, if there are any parts that you feel don't reflect your experiences, that would also be helpful to know about.

As you have given your consent for this, I will be audio and video recording [if consented to video] this focus. Before I start recording, does anyone have any questions?

Start recording

To start with, I'm going to share my initial programme theory and just talk through it, before I invite your discussion. So I suppose this is an overall hypothesis about what might be going on when EPs use DA. The bullet points all represent a subtheme that came out of my analysis of the interviews. I haven't specifically linked each context, mechanism and outcome as I felt this could get quite complex and currently these are hypothesised links, so I've presented them all together.

In the yellow box at the top, labelled DA, I have put the themes that related to the way that EPs use DA more generally, in terms of how is defined, how it is applied in practice, and also some of the things that may lead EPs to use DA or not in the first place, for example when it is facilitated within the service or when it is appropriate for the context of the work. These were more general, and so did not relate directly to mechanisms and outcomes but I still felt they were important to include.

We then have the contexts box in green. These are things that happen within the context of DA, that then may trigger some of the mechanisms which lead to the outcomes. Some of these things are around how other people are involved, for example collaboratively involving school staff at different points, having clear communication with them, setting them up to have realistic expectations of DA, and also collaboratively involving the child. Other contexts more specifically relate to what the EP does, in terms of applying the philosophy of DA and mediation, and also their choice of tasks and resources.

The blue mechanisms box are things that are triggered by these contexts, that may then lead to the outcomes. These include things that happen between the EP and school staff, such as developing a shared understanding, challenging existing thoughts and ideas, and having the opportunity for an exchange of ideas. There is also a mechanism linked to the child, in terms of DA and the EP creating an environment that supports them to experience autonomy and competence. Some mechanisms are also linked to the processes that happen for the EP during DA, in terms of adapting mediation to the needs of the child, and making observations and linking these to existing theory.

So then we have the outcomes in orange. These are things that were shared in the interviews as some of the perceived outcomes of DA. Some of these relate more

to school staff, in terms of them supporting the child in a different way, or the narrative around the child becoming more hopeful. Then there is the self-perception of the child themselves, which may become more positive. The final outcome links to school staff, the child and the EP, and refers to understanding of factors impacting learning for the child being increased.

Is there anything that needs further clarification, or do you have any questions?

Would anyone like to open the discussion around this, in terms or anything that resonates or not with their experiences?

Follow up questions as required

Stop recording

Thank you all for your time today. If there is anything you would like to talk about, please contact me or my supervisor using the contact details on the participant information sheet. Please keep a copy of the participant information sheet and consent form for your records.

Appendix G: Participant Information Sheets and Consent Forms

Phase 1: Semi-Structured Interviews

Josie Newman School of Education and Lifelong

Postgraduate Researcher/ Trainee Educational Psychologist

May 2023 University of East Anglia

Norwich Research Park

Norwich NR4 7TJ

United Kingdom

How, Why and When does Educational Psychologist use of Dynamic Assessment have Positive Outcomes?

EDUCATIONAL PSYCHOLOGIST PARTICIPANT INFORMATION SHEET

(1) What is this study about?

You are invited to take part in a research study about dynamic assessment. This study will involve developing and testing theory about Educational Psychologist use of dynamic assessment, and how, why and when it has positive outcomes. This will include considering the outcomes that occur when Educational Psychologists use dynamic assessment, the mechanisms that contribute to these outcomes occurring, and the contexts that support these outcomes to occur.

You have been invited to participate in this study because you are an Educational Psychologist working within my placement service. You will be eligible to take part in the study if you have some experience of dynamic assessment, defined as use of a mediated activity to explore the factors impacting learning for a child or young person. If you are interested but I have already reached my maximum number of participants, I may not need you to take part. This Participant Information Sheet tells you about the research study. Knowing what is involved will help you decide if you want to take part in the study. Please read this sheet carefully and ask questions about anything that you don't understand or want to know more about.

Participation in this research study is voluntary. By giving consent to take part in this study you are telling me that you:

- ✓ Understand what you have read.
- ✓ Agree to take part in the research study as outlined below.
- ✓ Agree to the use of your personal information as described.
- ✓ You have received a copy of this Participant Information Sheet to keep.

(2) Who is running the study?

My name is Josie Newman. I am conducting this study as part of a Doctorate in Educational Psychology at the University of East Anglia, within the school of Education and Lifelong Learning.

This study will take place under the supervision of Dr Alistair James, Academic and Professional Tutor – XXX@uea.ac.uk.

(3) What will the study involve for me?

Participation in this study will involve two interviews, spaced a few months apart. These will take place virtually, via Microsoft Teams, and will last approximately 30-40 minutes. These interviews will be audio and video recorded, and then transcribed and analysed by me. You can opt out of video recording by turning your camera off during the recording. Audio recording is essential to the analysis process, so please do not take part in the study if you do not consent to this. You will have the opportunity to review your transcripts prior to data analysis. In addition, I may make some anonymised, handwritten notes.

You will be asked questions about your experience of dynamic assessment. The first interview will be more exploratory, and you will be asked more open questions. The second interview will be more focused, and you will be asked for your thoughts on the different theories which have been generated from the first phase of the study.

Participation in this study may also involve me observing you completing a dynamic assessment session with a pupil, dependent on parent, pupil, school and your consent. During this observation, I would like to make some anonymised, handwritten notes.

(4) How much of my time will the study take?

Each of the two interviews will last approximately 30-40 minutes. If you would like to review your transcripts, this may take between 30 minutes and 2 hours depending on how thoroughly you choose to do this. However, reviewing transcripts is an optional part of the study.

(5) Do I have to be in the study? Can I withdraw from the study once I have started?

Being in this study is completely voluntary and you do not have to take part. Your decision whether to participate will not affect your current or future relationship with me or anyone else at the University of East Anglia or [EPS] now or in the future.

If you decide to take part in the study, you can withdraw your consent at any point up to the point that your data is fully anonymised. You can do this by contacting me via email.

(6) What are the consequences if I withdraw from the study?

You are free to stop the interview at any time. Unless you say that you want me to keep them, any recordings will be erased and the information you have provided will not be included in the study results. You may also refuse to answer any questions that you do not wish to answer

during the interview. If you decide at a later time to withdraw from the study your information will be removed from my records and will not be included in any results, up to the point data has been fully anonymised.

If you take part in an observation session, you can ask for the observation to be stopped at any time. I will then leave and your involvement can continue. If you decide at a later time to withdraw from the study, the observation notes will be excluded from data analysis, up to the point data has been fully anonymised.

(7) Are there any risks or costs associated with being in the study?

Aside from giving up your time, I do not expect that there will be any risks or costs associated with taking part in this study.

(8) Are there any benefits associated with being in the study?

It is hoped that the study will be enjoyable to take part in, by providing an opportunity to reflect on and discuss your practice relating to dynamic assessment.

More broadly, the study is hoping to develop understanding of dynamic assessment, and contribute to the evidence-base. This will support Educational Psychologists to make informed choices about using dynamic assessment, and aid justification of decisions. By considering the contexts in which any positive outcomes occur, it is also hoped that the research will lead to suggestion of 'best practice' approaches. This is anticipated to support the development of guidelines and regulation for the training, supervision and practice of dynamic assessment by Educational Psychologists, and therefore increase positive outcomes for teachers and pupils.

(9) What will happen to information provided by me and data collected during the study?

- Anonymised, handwritten notes from observations and interviews, and recordings and transcripts of interviews will be data collected and used in the study.
- Recordings will be used for transcription only, and images or audio will not be published.
- Your personal data and information will be stored securely and only accessed by me as necessary.
- Data will be retained for 10 years.
- Your identity and any information you provide will be kept strictly confidential, except as required by law. If anything is disclosed which suggests that you or others are at risk of harm, safeguarding procedures will be followed.
- If you wish to access your personal data from the study, you can contact me.
- Final results from the study will be submitted and published as part of my thesis, and this will eventually be available online. Results may also be published in a journal, and presented at conferences. You will not be identified in these publications if you decide to participate in this study.

• It is not intended that the data collected in this project will be used for any other purpose.

Your personal data and information will only be used as outlined in this Participant Information Sheet, unless you consent otherwise. Data management will follow the Data Protection Act 2018 (DPA 2018) and UK General Data Protection Regulation (UK GDPR), and the University of East Anglia's Research Data Management Policy.

(10) What if I would like further information about the study?

When you have read this information, I, Josie Newman – XXX@uea.ac.uk will be available to discuss it with you further and answer any questions you may have about the study.

(11) Will I be told the results of the study?

You have a right to receive feedback about the overall results of this study.

You can tell me that you wish to receive feedback. The results will be published in my thesis, which will eventually be publicly available in the online UEA repository. A one page summary of the research will also be produced and shared, if requested. These will be available after thesis examination, likely to be late 2024.

(12) What if I have a complaint or any concerns about the study?

If there is a problem please let me know. You can contact me via the University at the following address:

Josie Newman

School of Education and Lifelong Learning

University of East Anglia

NORWICH NR4 7TJ

XXX@uea.ac.uk

If you would like to speak to someone else, you can contact my supervisor:

Dr Alistair James, Academic and Professional Tutor – XXX@uea.ac.uk.

If you are concerned about the way this study is being conducted or you wish to make a complaint to someone independent from the study, please contact the Head of the School of Education and Lifelong Learning – Professor Yann Lebeau: XXX@uea.ac.uk.

(13) How do I know that this study has been approved to take place?

To protect your safety, rights, wellbeing and dignity, all research in the University of East Anglia is reviewed by a Research Ethics Body. This research was approved by the EDU S-REC (School of Education and Lifelong Learning Research Ethics Subcommittee).

(14) What is the general data protection information I need to be informed about?

According to data protection legislation, I am required to inform you that the legal basis for processing your data as listed in Article 6(1) of the UK GDPR is because this allows us to process personal data when it is necessary to perform our public tasks as a University.

In addition to the specific information provided above about why your personal data is required and how it will be used, there is also some general information which needs to be provided for you:

- The data controller is the University of East Anglia.
- For further information, you can contact the University's Data Protection Officer at XXX@uea.ac.uk
- You can also find out more about your data protection rights at the Information Commissioner's Office (ICO).
- If you are unhappy with how your personal data has been used, please contact the University's Data Protection Officer at XXX@uea.ac.uk in the first instance.

(15) OK, I want to take part – what do I do next?

You need to fill in one copy of the consent form and return to me via email. If this is not possible, please inform me and it can be arranged to return a hard copy. Please keep the information sheet and the second copy of the consent form for your information.

(16) Further information

This information was last updated 02.05.23

If there are changes to the information provided, you will be notified by email.

This information sheet is for you to keep

PARTICIPANT CONSENT FORM

l,	[PRINT	NAME],	agree	to	take	part	in
this research study.							

In giving my consent I state that:

- I understand the purpose of the study, what I will be asked to do, and any risks/benefits involved.
- I have read the Participant Information Sheet, which I may keep for my records, and have been able to discuss my involvement in the study with the researcher if I wished to do so.
- The researcher has answered any questions that I had about the study and I am happy with the answers.
- I understand that being in this study is completely voluntary and I do not have to take part. My decision whether to be in the study will not affect my relationship with the researcher or anyone else at the University of East Anglia or [EPS] now or in the future.
- I understand that I may stop the interview at any time if I do not wish to continue, and that unless I indicate otherwise any recordings will then be erased and the information provided will not be included in the study results, up until the point at which data is anonymised. I also understand that I may refuse to answer any questions I don't wish to answer.
- I understand that I can ask for the observation to be stopped at any time if I do not wish to continue. I also understand that if I decide at a later time to withdraw from the study, the observation notes will be excluded from data analysis, up to the point data has been fully anonymised.
- I understand that personal information about me that is collected over the course of this project will be stored securely and will only be used for purposes that I have agreed to. I understand that information about me will only be told to others with my permission, except as required by law.
- I understand that the results of this study will be used for a thesis assessment and may be published but that the thesis and any publications will not contain my name or any identifiable information about me.

Please note that interviews and audio-recording are an essential part of the study. If you do not consent to either of these, please do not take part in the study.

I consent to:	

Interviews	YES	NO	
Observation	YES	NO	

Audio-recording	YES		NO	
Video-recording	YES		NO	
Handwritten notes	YES		NO	
Reviewing transcripts	YES		NO	
Would you like to receive feedback about the overall results of the	nis stud	y?		
	YES		NO	
If you answered YES to receiving feedback, please indicate an en	nail add	ress		
Email:				
Signature				
PRINT name				
Date				

Phase 2: Focus Group

Josie Newman School of Education and Lifelong
Learning

Postgraduate Researcher/ Trainee Educational Psychologist

January 2024

University of East Anglia

Norwich Research Park

Norwich NR4 7TJ

United Kingdom

How, Why and When does Educational Psychologist use of Dynamic Assessment have Positive Outcomes?

EDUCATIONAL PSYCHOLOGIST PARTICIPANT INFORMATION SHEET – PART 2

(1) What is this part of the study about?

This research study about dynamic assessment. This study involves developing and testing theory about Educational Psychologist use of dynamic assessment, and how, why and when it has positive outcomes. This includes considering the outcomes that occur when Educational Psychologists use dynamic assessment, the mechanisms that contribute to these outcomes occurring, and the contexts that support these outcomes to occur. This second part of the study is hoping to refine some of the findings from the first part of the study.

You have been invited to participate in this second part of the study because you have taken part in the first part of this study. This Participant Information Sheet tells you about this part of the research study. Knowing what is involved will help you decide if you want to participate in this part of the study. Please read this sheet carefully and ask questions about anything that you don't understand or want to know more about.

Participation in this part of the research study is voluntary. By giving consent to take part in this study you are telling me that you:

- ✓ Understand what you have read.
- ✓ Agree to take part in the research study as outlined below.
- ✓ Agree to the use of your personal information as described.
- ✓ You have received a copy of this Participant Information Sheet to keep.

(2) Who is running the study?

My name is Josie Newman. I am conducting this study as part of a Doctorate in Educational Psychology at the University of East Anglia, within the school of Education and Lifelong Learning.

This study will take place under the supervision of Dr Alistair James, Academic and Professional Tutor – XXX@uea.ac.uk.

(3) What will this part of the study involve for me?

Participation in this part of the study will involve a focus group with up to seven Educational Psychologists from [Local Authority]. This will take place virtually, via Microsoft Teams, and will last approximately one hour. I will propose three possible times for the focus group and conduct it at the time that most people can attend. Unfortunately, I may not be able to accommodate all schedules. The focus group will be audio and video recorded, and then used to refine my analysis. You can opt out of video recording by turning your camera off during the recording. Audio recording is essential to the analysis process, so please do not take part in the study if you do not consent to this. In addition, I will make some anonymised, handwritten notes. I would like to request that everything discussed in the focus group remains confidential, with the exception of any safeguarding concerns.

(4) How much of my time will this part of the study take?

The focus group will last around one hour. I will email you my hypotheses in advance of this, and if you wish to read them before this may take around 10 minutes.

(5) Do I have to be in this part of the study? Can I withdraw from this part of the study once I have started?

Being in this part of the study is completely voluntary and you do not have to take part. Your decision whether to participate will not affect your current or future relationship with me or anyone else at the University of East Anglia or [EPS] now or in the future.

If you take part in the focus group, you are free to stop participating at any stage or to refuse to answer any of the questions. However, it will not be possible to withdraw your individual comments from our records once the group has started, as it is a group discussion.

(7) What are the consequences if I withdraw from this part of the study?

As stated above, you are free to stop participating in the focus group at any stage or to refuse to answer any of the questions, and there will be no consequences for this. However, it will not be possible to withdraw your individual comments from our records once the group has started, as it is a group discussion.

(8) Are there any risks or costs associated with being in the study?

Aside from giving up your time, I do not expect that there will be any risks or costs associated with taking part in this study.

(9) Are there any benefits associated with being in this part of the study?

It is hoped that this part of the study will be enjoyable to take part in, by providing an opportunity to reflect on and discuss your practice relating to dynamic assessment with colleagues.

More broadly, the study is hoping to develop understanding of dynamic assessment, and contribute to the evidence-base. This will support Educational Psychologists to make informed choices about using dynamic assessment, and aid justification of decisions. By considering the contexts in which any positive outcomes occur, it is also hoped that the research will lead to suggestion of 'best practice' approaches. This is anticipated to support the development of guidelines and regulation for the training, supervision and practice of dynamic assessment by Educational Psychologists, and therefore increase positive outcomes for teachers and pupils.

(10) What will happen to information provided by me and data collected during the study?

- Anonymised, handwritten notes and a recording of the focus group will be data collected and used in the study.
- Recordings will be used for data analysis, and images or audio will not be published.
- Your personal data and information will be stored securely and only accessed by me as necessary.
- Data will be retained for 10 years.
- Your identity and any information you provide will be kept strictly confidential, except as required by law. If anything is disclosed which suggests that you or others are at risk of harm, safeguarding procedures will be followed.
- If you wish to access your personal data from the study, you can contact me.
- Final results from the study will be submitted and published as part of my thesis, and this will eventually be available online. Results may also be published in a journal, and presented at conferences. You will not be identified in these publications if you decide to participate in this study.
- It is not intended that the data collected in this project will be used for any other purpose.

Your personal data and information will only be used as outlined in this Participant Information Sheet, unless you consent otherwise. Data management will follow the Data Protection Act 2018 (DPA 2018) and UK General Data Protection Regulation (UK GDPR), and the University of East Anglia's Research Data Management Policy.

(11) What if I would like further information about the study?

When you have read this information, I, Josie Newman – XXX@uea.ac.uk will be available to discuss it with you further and answer any questions you may have about the study.

(12) Will I be told the results of the study?

You have a right to receive feedback about the overall results of this study.

You can tell me that you wish to receive feedback, and you may have already done this. The results will be published in my thesis, which will eventually be publicly available in the online UEA repository. A one page summary of the research will also be produced and shared. These will be available after thesis examination, likely to be late 2024.

(13) What if I have a complaint or any concerns about the study?

If there is a problem please let me know. You can contact me via the University at the following address:

Josie Newman

School of Education and Lifelong Learning

University of East Anglia

NORWICH NR4 7TJ

XXX@uea.ac.uk

If you would like to speak to someone else, you can contact my supervisor:

Dr Alistair James, Academic and Professional Tutor – XXX@uea.ac.uk.

If you are concerned about the way this study is being conducted or you wish to make a complaint to someone independent from the study, please contact the Head of the School of Education and Lifelong Learning – Professor Yann Lebeau: XXX@uea.ac.uk.

(14) How do I know that this study has been approved to take place?

To protect your safety, rights, wellbeing and dignity, all research in the University of East Anglia is reviewed by a Research Ethics Body. This research was approved by the EDU S-REC (School of Education and Lifelong Learning Research Ethics Subcommittee).

(15) What is the general data protection information I need to be informed about?

According to data protection legislation, I am required to inform you that the legal basis for processing your data as listed in Article 6(1) of the UK GDPR is because this allows us to process personal data when it is necessary to perform our public tasks as a University.

In addition to the specific information provided above about why your personal data is required and how it will be used, there is also some general information which needs to be provided for you:

- The data controller is the University of East Anglia.
- For further information, you can contact the University's Data Protection Officer at XXX@uea.ac.uk

- You can also find out more about your data protection rights at the Information Commissioner's Office (ICO).
- If you are unhappy with how your personal data has been used, please contact the University's Data Protection Officer at XXX@uea.ac.uk in the first instance.

(16) OK, I want to take part – what do I do next?

You need to fill in one copy of the consent form and return to me via email. If this is not possible, please inform me and it can be arranged to return a hard copy. Please keep the information sheet and the second copy of the consent form for your information.

(17) Further information

This information was last updated on 08.01.24.

If there are changes to the information provided, you will be notified by email.

This information sheet is for you to keep

PARTICIPANT CONSENT FORM					
I,	NAME],	agree t	o take p	art in	
In giving my consent I state that:					
 I understand the purpose of the study, what risks/benefits involved. I have read the Participant Information Sheet, wand have been able to discuss my involvement in the wished to do so. The researcher has answered any questions that am happy with the answers. I understand that being in this part of the study do not have to take part. My decision whether to be relationship with the researcher or anyone else at the landward or in the future. I understand that I may leave the focus group continue. I also understand that it will not be possible to the group has started, as it is a group discussion. I understand that personal information about course of this project will be stored securely and will deave agreed to. I understand that information about may permission, except as required by law. I understand that the results of this study will and may be published but that the thesis and any permander or any identifiable information about me. 	which I mane study we hat I had a dy is compain the study we hat any tire to withdrate the me that conly be used for the studenty of the will only be used for the studenty which is the studenty which is the studenty which is the studenty with the studenty which is the studenty which is the studenty with the studenty with the studenty which is the studenty with the studenty wi	y keep for the second of the s	for my recression research the study coluntary not affe Anglia or do not womments ected over ourposes to other sis assess	and I and I ct my [EPS] ish to conce er the that I s with	
Please note that the focus group, audio-recording and har parts of this part of the study. If you do not consent to the this part of the study.					
I consent to:					
Focus group	YES		NO		
Audio-recording	YES		NO		
Handwritten notes	YES		NO		

Video-recording	YES	NO	
Signature			
DDINT no ma			
PRINT name			
Date			

Appendix H: Consideration of Quality Criteria

 Table H1

 Quality Criteria and Explanation of Incorporation Into the Current Study

Criteria	Description	Incorporation into current study
Inter-coder comparison/ independent scrutiny of analysis (King, 2023a; King & Brooks, 2018) Comparing coding (Yardley, 2015)	Involving different types of coder at different stages in the analysis. Can be used as a way to stimulate different perspectives on the data and support reflexivity. Comparing the coding of two or more researchers, or discussing developing codes to triangulate perspectives.	The researcher met regularly with a research supervisor and advisor to critically discuss analysis process.
Respondent feedback (King, 2023a; King & Brooks, 2018) Participant feedback (Yardley, 2015)	Attempting to involve some or all of a study's participants in the analysis process. Asking participants to comment on the analysis.	Participants were invited to check their transcripts if they wished to. Some participants took part in the focus group during the second phase of data collection. This allowed direct participant feedback on the analysis of the data and development of the initial programme theory, along with triangulation of viewpoints.

Criteria	Description	Incorporation into current study
Triangulation (Yardley,	Enriching understanding by viewing from different	
2015)	perspectives.	
Audit trails (King, 2023a;	A record of how the analysis developed over the course	All stages of the analysis process have been
King & Brooks, 2018)	of a study. This normally includes successive versions of	documented, including familiarisation, initial coding and
	the thematic framework, noting changes and capturing	theme development. Samples of these have been
	the reasoning behind changes.	included within Appendices to demonstrate the audit trail
		and increase transparency in the analysis process.
A paper trail (Yardley,	Provide evidence linking the raw data to the final report,	
2015)	to reassure others that the study has been completed	
	carefully and professionally.	
Disconfirming case	Systematically searching for data that does not fit	All relevant contexts, mechanisms and outcomes were
analysis (Yardley, 2015)	themes or patterns developed.	coded from the data and included in the development of
		themes, including any that may have differed from
		developing patterns.
Reflexivity (King, 2023a;	The researcher must reflect on the nature of their	A reflective research diary has been kept throughout this
King & Brooks, 2018)	involvement in the research and the way this shapes	process, in which decisions made throughout the
	outcomes. Reflexivity is defined by Braun and Clarke	process have been justified and reflected on. This is also
	(2022, p. 294) as 'the process and practice of a	included throughout this thesis in justification of methods

Criteria	Description	Incorporation into current study
Coherence and transparency (Yardley, 2015)	researcher critically reflecting on how their disciplinary, theoretical and personal assumptions and their design choices shape and delimit the knowledge they produce'. The extent to which a study makes sense as a consistent whole, including the consistency between theoretical approach, research question, methods and data interpretation. How well the reader can see what was done and why, with reflexivity being an important part of this.	and approaches used, and it is hoped that consistency has been demonstrated. In addition, the researcher has regularly met with a research supervisor to discuss how their assumptions and choices have impacted the current research.
Sensitivity to context (Yardley, 2015)	Ensuring that research is situated within existing relevant theoretical and empirical literature, and is sensitive to the perspective and socio-cultural context of participants.	A thorough literature review has been completed to ensure that relevant theoretical and empirical literature has been considered. The researcher is a member of the EP community, therefore it is hoped that this has supported sensitivity to the contexts of participants. This was also considered as part of the application for ethical approval.

Criteria	Description	Incorporation into current study
Commitment and rigour	Demonstrate analysis that shows sufficient breadth	This is demonstrated through the detailing and
(Yardley, 2015)	and/or depth to give additional insight into the area.	justification of the methodology used in this study, along
		with the audit trail, mentioned above.
Impact and importance	Findings have the potential to make a difference, which	The importance of this research is hoped to have been
(Yardley, 2015)	could include direct practical implications, theoretical or	demonstrated throughout this portfolio in the literature
	socio-cultural impact.	review and justification of the study, and in considering
		implications for EP practice as part of the discussion.

Appendix I: Process of CMO Hypothesis Development

Figure I1

Diagram Showing Initial Exploration of Lateral Links Between Subthemes

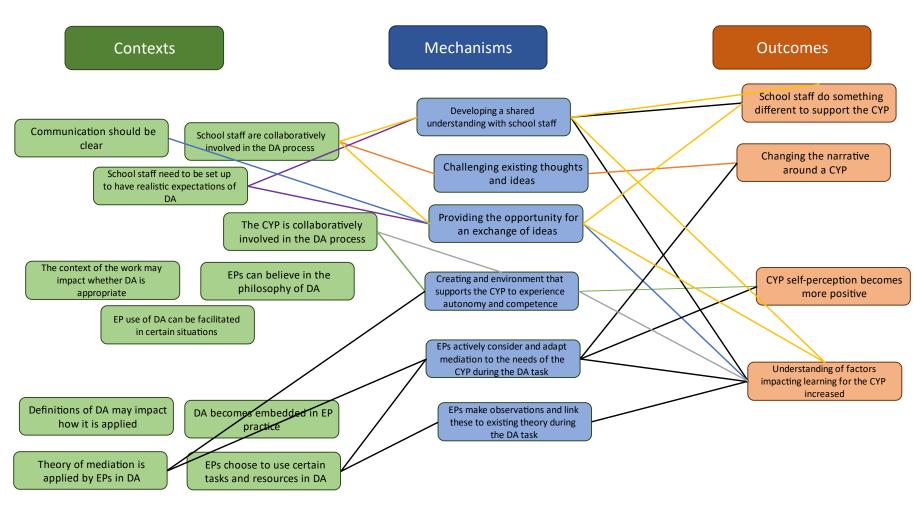


Table I1Initial CMO Hypotheses Using Wording of Subthemes

Contexts	Outcomes	Mechanisms
When communication is clear	Then understanding of factors impacting learning for the child is increased	This is because the opportunity for the exchange of ideas has been provided.
When school staff are collaboratively involved in the DA process	The narrative around the child is changed	This is because existing thoughts and ideas have been challenged.
When school staff are collaboratively involved in the DA process	Then understanding of factors impacting learning for the child is increased	This is because a shared understanding has been developed with school staff.
When school staff are collaboratively involved in the process	Then school staff do something different to support the child	This is because a shared understanding has been developed with school staff.
When school staff are collaboratively involved in the process	Then understanding of factors impacting learning for the child is increased	This is because the opportunity for the exchange of ideas has been provided.
When the child is collaboratively involved in the DA process	The child self-perception becomes more positive	This is because the child has experienced autonomy and competence during the DA task.
When the child is collaboratively involved in the DA process	The child self-perception becomes more positive	This is because a comfortable environment has been created that supports the child to engage and achieve.
When the child is collaboratively involved in the DA process	Then their understanding of factors impacting their learning is increased	This is because the child has experienced autonomy and competence during the DA task.
When theory of mediation is applied by EPs in DA	Then understanding of factors impacting learning for the child are increased	This is because the EP has actively considered and adapted mediation to the needs of the child during the task.

Contexts	Outcomes	Mechanisms
When school staff are set up to have realistic expectations of DA	Then school staff can do something different to support the child	This is because they can develop a shared understanding with the EP.
When school staff are set up to have realistic expectations of DA	Then understanding of factors impacting learning for the child is increased	This is because they can develop a shared understanding with the EP.
When school staff are set up to have realistic expectations of DA	Then understanding of factors impacting learning for the child is increased	This is because it provides the opportunity for an exchange of ideas.
When EPs choose to use certain tasks and resources in DA	Then understanding of factors of factors impacting learning for the child is increased	This is because EPs have made observations and linked these to existing theory during the DA task.
When EPs choose to use certain tasks and resources in DA	The narrative around the child is changed	This is because EPs actively consider and adapt mediation to the needs of the child during the DA task.
When EPs choose to use certain tasks and resources in DA	Then understanding of factors of factors impacting learning for the child is increased	This is because EPs actively consider and adapt mediation to the needs of the child during the DA task.
When EPs choose to use certain tasks and resources in DA	Then child self-perception becomes more positive	This is because EPs actively consider and adapt mediation to the needs of the child during the DA task.
When EPs apply the theory of mediation in DA	The narrative around the child is changed	This is because EPs actively consider and adapt mediation to the needs of the child during the DA task.
When EPs apply the theory of mediation in DA	Then understanding of factors impacting learning for the child is increased	This is because EPs actively consider and adapt mediation to the needs of the child during the DA task.

Contexts	Outcomes	Mechanisms
When EPs apply the theory of mediation in DA	Then child self-perception becomes more positive	This is because EPs actively consider and adapt mediation to the needs of the child during the DA task.
When EPs choose to apply the philosophy of DA	Then child self-perception becomes more positive	This is because an environment has been created that supports the child to experience autonomy and competence.
When EPs choose to apply the philosophy of DA	Then child self-perception becomes more positive	This is because EPs actively consider and adapt mediation to the needs of the child during the DA task.

Table 12Developed CMO Hypotheses With Examples and Grouped by Context

Contexts	Outcomes	Mechanisms
When communication between school staff and EPs around DA is clear	Then school staff increase their understanding of factors impacting learning for the child	This is because the opportunity for the exchange of ideas between the EP and the member of school staff has been provided.
When school staff are collaboratively involved in the DA process, including observing the DA task and having conversations with the EP before and after the task	Then the narrative around the child from the perspective of school staff becomes more hopeful	This is because existing thoughts and ideas relating to the child have been challenged.
When school staff are collaboratively involved in the DA process, including observing the DA task and having conversations with the EP before and after the task	Then school staff increase their understanding of factors impacting learning for the child	This is because the opportunity for the exchange of ideas between the EP and the member of school staff has been provided
	And school staff do something different to support the child	

Contexts	Outcomes	Mechanisms
	including adapting interventions to include successful mediation strategies	And a shared understanding of what helps to support the child has been developed between the EP and school staff.
When the child is collaboratively involved in the DA process, including the EP preparing them for the task, building rapport and involving them in reflections on their observations	Then the self-perception of the child becomes more positive	This is because an environment has been created that supports the child to experience autonomy and competence, and DA is a positive experience for the child.
When the child is collaboratively involved in the DA process, including the EP involving them in reflections and observations, bridging between the task and the class and providing written feedback	Then the child's understanding of their learning is increased	This is because an environment has been created that supports the child to experience autonomy and competence.
When school staff are set up to have realistic expectations of DA, including being open to DA as a method of cognitive assessment	Then school staff understanding of factors impacting learning for the child is increased	This is because school staff are open to engaging in an exchange of ideas with the EP
	And school staff can do something different to support the child	And a shared understanding of what helps to support the child has been developed between the EP and school staff.
When EPs choose to use certain tasks and resources in DA, including using checklists and linking the task choice to the assessment question	Then EP understanding and formulation of factors of factors impacting learning for the child is developed	This is because EPs have made observations and linked these to existing theory during the DA task.
When EPs choose to use certain tasks and resources in DA including linking the task choice to the assessment question and the appropriate level of challenge for the child	The narrative around the child becomes more hopeful	This is because EPs actively consider and adapt mediation to the needs of the child during the DA task.

Contexts	Outcomes	Mechanisms
	And understanding of factors impacting learning for the child is increased	And an environment has been created that supports the child to experience autonomy and competence.
	And the self-perception of the child becomes more positive	
When EPs use mediation in DA by applying different types and definitions of mediation	Then the self-perception of the child becomes more positive And the narrative around the child becomes more positive	This is because EPs actively consider and adapt mediation to the needs of the child during the DA task And an environment has been created that supports the child to experience autonomy and competence.
When EPs use mediation in DA by applying different types and definitions of mediation	Then EP understanding and formulation of factors impacting learning for the child is developed	This is because the EP has actively considered and adapted mediation to the needs of the child during the task, including the mediation needed, impact of the mediation and what constituted successful mediation.
When EPs believe in and apply the philosophy of DA, including being strengths-based, ending on success and looking at potential of the child	Then the self-perception of the child becomes more positive	This is because EPs actively consider and adapt mediation to the needs of the child during the DA task
		And an environment has been created that supports the child to experience autonomy and competence.

Appendix J: Focus Group Data Analysis

Figure J1

Handwritten Notes on Initial Programme Theory

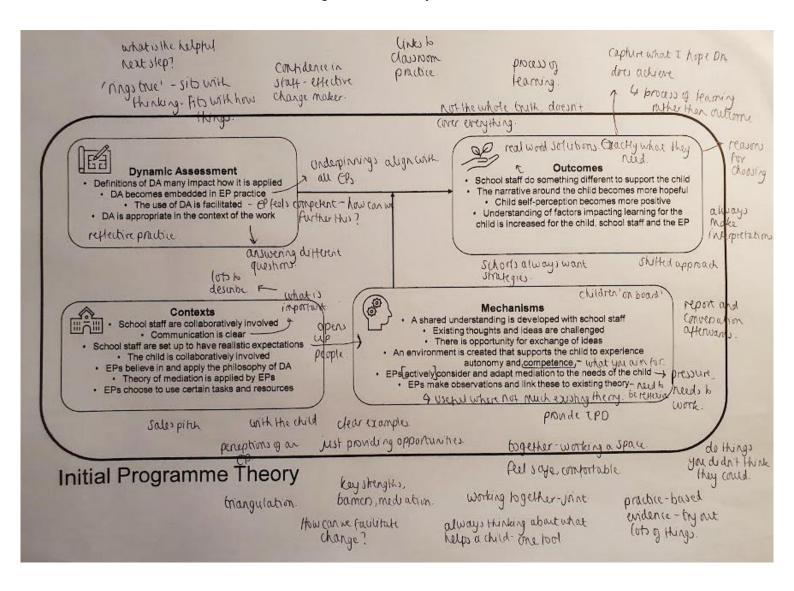


Table J1Focus Group Quotes Organised Into the Coding Template

Themes	Participant number	Quotations (Areas mentioned in handwritten notes highlighted in yellow)
Dynamic Assessment	EP 4	I just wanted to say [Researcher], I think looking at your, I think looking at that it it kind of rings true. I think reading all your your boxes and reading the bullet points, I don't know it feels like it's sits with my kind of thinking around things and I don't know if you guys feel the same but it feels like you've drawn out some really key, kind of key bits there that feel like it fits with how things are in a best case scenario
Definitions of DA may impact how it is applied		
DA becomes embedded in EP practice	EP 6	I suppose just a broad point that I mean you you were just talking, [Researcher], about broad context that, that, that question about what helps a child to achieve as much as they can, even if even if we're not sort of specifically doing dynamic assessment that should be something we're always thinking about. I I should I, I would hope that all EPs do, even ones it never use a formal dynamic assessment.
	EP 5	Yeah, [Name] I think you're right, the I guess the underpinnings and the values of dynamic assessment align nicely with the values I would say you know most EPs if not all of looking for that positive change and looking for that, that thing that helped makes a child tick.

		You know the the thing that they just, they need to make the next step.
		And so I guess yeah, in a way you you are always engaging in some form of dynamic assessment even if you just using consultation
	EP 6	So it's an important question, we're not, it's not measuring something, it's not how good or something like this it's how can we facilitate change
The use of DA is facilitated	EP 5	And I think it's once you've really described dynamic assessment, I I haven't had much pushback from schools.
		I can think of one occasion where they were like, no, that's not gonna do us.
		And I was like, well, that's tough cause this is my professional opinion on what they need, not they don't need a standardized in this instance because you've got enough data to show that already.
		Umm, actually what you need is that narrative to change, you know, all the things we've been talking about.
		But typically, I I think schools get on board with it.
	EP 4	I think I think my, and is there something there then about I suppose EP confidence?
		I think like we were saying, [Name] it's having that confidence, you're you're challenging what they kind of are thinking would be useful if they're not used to it is having the confidence to say okay this will be useful.
		I think dynamic assessment someone said to me years ago, who does she does a lot of dynamic assessment in special schools as part of her like other private role.

	And she said it's a bit of a therapeutic approach almost that you need to develop those skills, it's not like here you go off you go and do it. Something you really have to kind of keep trying out and keep practicing and we don't, I don't know if we do that enough really to build that confidence.
EP 4	And so then is it about time almost, a lot of doing it dynamic assessment I do at the moment, probably around statutory work because that's where I'm gonna be going and doing assessments, other work is just is consultation work at the moment to be fair Sometimes it's having the time to be able to go to, you know, if you think this would be useful, you go.
EP 5	If I'm gonna have a consultation cause, that's what I've got time to give you at the moment I guess and you'd have to feel competent enough to get to that, achieve that and they have to feel confident with their own competence don't they.
	It just makes me wonder about how how, you know, there's obviously CPD, but how can we further that and develop EPs confidence and competence within dynamic assessment, I think that's that can be quite tricky because actually it's a very as as you said, [Name], evidence, practice based evidence is very personal.
	And so it's difficult to can be difficult I guess to facilitate how people experience dynamic assessment because two EP's will see an assessment very differently and go about it in a very different way
EP 6	I mean that definitely does link to the skills of the EP as you said, not just their skills, it's also their individuality And that has implications for how you monitor afterwards I guess.

DA is appropriate in the context of	EP 6	Yeah, I don't consider them to be alternatives. They're answering different questions.
the work		And yeah.
		I mean, I mean, it's often phrased that way, isn't it?
		I mean it is a, you know?
		You asked to compare the two or.
		So what?
		Why?
		Why some people use one and some people use the other?
		I mean, really the answer is you're answering different kinds of questions.
	EP 5	And obviously that kind of fix and stuck and or whatever, whatever the word is for a reason and actually unpicking why they need, why they feel the need for a cognitive assessment or, you know, actually unpicking that is just as much intervention as to providing what they need, isn't it?
		And probably even more of an intervention.
		So I think I think I would definitely take that approach now knowing what I know and.
		I was working in the traded model and consultation approach just wasn't really.
		Yeah, it wasn't the thing that schools would buy into they'd buy assessments.
	EP 7	Yeah.
		Because because they're very different.

		They wouldn't be saying that they're it's not a Mr Wechsler and saying that they're completely different. They're looking at something very different.
	EP 4	Yeah, it's just one tool in just trying to move that situation forward isn't it, it's just one tool that you might be using.
Contexts		
School staff are collaboratively involved in the DA process	EP 4	sometimes I've had staff observe dynamic assessment make notes during it, so they're very much involved in the dynamic assessment, I think that then sets up for more collaboration afterwards, yeah.
The child is collaboratively involved in the DA process	EP 7	Yeah, it definitely feels an approach where you're in it together, that's joint
Communication should be clear	EP 7	It's also something around with the the around reporting it in a helpful way. It's definitely something that I've been on a journey, to in trying to be umm, you know inform but be concise and uh yes it's definitely something I've been working on how to report back And well, like you say, it's a hard one because I'm trying to go be concise because I I think I used to. Umm yeah be quite lengthy in my, because I you know you get quite excited about what you've found, but actually that all that's not particularly uh important to all. So I have tried to use in my early intervention work the charts or charting observations, whereas the EHCs is not so much, it just depends on the opportunities you get to be using it.

	But I've tried to get myself to be a bit more focused in on like you say, the the different areas of cognition, but trying to, you know, take four or five and and report it succinctly, and as helpfully as possible.
EP 6	I certainly take your point about how it's harder to be concise because there's so much to describe.
EP 4	Yeah, I think I I tend to report it in like key strength, key barriers, key mediation and kind of summarize it in those kind of under those headings. Umm.
Multiple	Yeah, I think I need to get better at that. I think I I tend to kind of use it to triangulate, if it kind of fits with other people are saying I tend to, it's kind of I'm kind of writing almost a story of.
	EP 7 38:59 Yeah. Yes.
	EP 4 39:04 Yeah, if it's an EHCP, I'll be writing a story for sure, yeah. EP 5 39:06
	Yeah, of what's going on rather than and so actually just helping it to flow rather than, you know, creating other tables have. But I think I'd, yeah, maybe if I did it in early intervention work, which I haven't really been able

	to do a lot, then maybe I would change and it would be quite nice to have that challenge of
	trying to interpret it or report it in a different way.
	EP 7 39:32
	Yeah.
	It's definitely been a challenge, which was it's interesting to think about. Umm, you know why?
	It's definitely something harder to report than doing perhaps a standardized that's not.
	EP 7
	Yeah, but then sometimes I'm so I've taken to do the like, take photos, say if it was the CDF and it's been really quite a stark difference through the the colours in the mediation.
	Then I use that
	EP 4 40:28
	Yeah.
	EP 6 40:29
	Yeah, that's one nice thing about the the about the the um complex figure is you've
	you've got the record afterwards, yeah.
Multip	le EP 7 40:37
	Yes.
	EP 4 40:38

		Like the working memory as well isn't it the 16 list, you've got your you've got your your written down of how they kind of done it.
School staff need to be set up to have realistic expectations of DA	EP 4.	I think that fits into the context around school staff is set up to have realistic expectations as opposed to, I think the times you can do dynamic assessment and then it doesn't work turn into a collaborative problem solving session is when they're expecting those numbers they kind of think, oh, you're going to come in and tell me where they fit and then you kind of go no, that's not what I've done that's not what's going to happen.
		I think I think it's really important to see that context up. So it opens up people to have that collaborative discussion with the information rather than them just being like, "well, I wanted some numbers actually. And you haven't given me any numbers", yeah.
	EP 4	I think it's just having that I think it's having that I think I've learned through experience it's having that conversation before you do the dynamic assessment.
		So I think then they tend to be more on board.
		I think if you if you don't have that conversation before you go and do it, then they can be a bit like that wasn't what I was expecting so I think if I have that conversation before about what it's going to lead to and what that looks like
	EP 6	it's something I do where where I have some trust in the teaching staff I wouldn't do that with with every every school, every every teacher I know, but this was somebody I knew quite well.

EP 5	And if you if you pitch it in, if you pitch it right, like you say, if you if you like [Name] said you if you don't mention it or don't think about you know then suddenly they get this report and think what on earth's this? But actually, once you've described it and schools understand it, especially in those you know, think about the zone of proximal developing and thinking about things that they're well versed with, actually it does all make sense. And schools always want strategies, that's exactly what dynamic assessment gives.
	That's that's what they want at all times.
EP 5	I think it took them to see the report and to to have that kind of conversation afterwards.
	Kind of what I'd taken from it it initially they were a bit like actually
	no, we don't, you know, we don't need that.
	We don't want that.
	Umm.
	And I probably wouldn't have sold it as well as I could now.
	And and I think sometimes it's a bit of a sales pitch, but I think once they actually saw the value of it, then they came around a bit more.
	I think they were sort of a bit hesitant because they were very their whole, you know, I think their whole existence of an understanding of an EP was they come in, they provide some numbers and we get a long report and that's like that's the only experience they'd had of an EP before me.

		So I think I think that was where it really was deep rooted that they just didn't, it just took them by surprise that I wasn't going to do that. And so I think they just needed to see what it actually looked like for rather than this thing that I was trying to explain if that makes sense.
	EP 4	I know they're different things but I think that's the same with the consultation model. I think when when schools have a set perception of what a need like, you know, they come and say I'll have a full EP assessment, like what does that even mean to people? It's I think when you try and work in different ways, it's just kind of bringing people on board, isn't it?
		When they have a set of expectation of what they kind of think you should come and do, but I think that's moving away from that more and more.
	EP 6	If I'm in that situation where I I really don't think the school is on board with what I wanna do, I probably go for insisting on consultation at the moment rather than sitting on dynamic assessment So in those situations where the school, I don't know has a fixed view or is trying to direct my work or something like that where I feel they need challenge I would insist on, you know, a proper consultation approach to begin with rather than going with dynamic assessment.
EPs believe in and apply the philosophy of DA		
EPs choose to use certain tasks and resources in DA		

Theory of mediation is applied by EPs in DA	EP 6	And you know your your ability to mediate will absolutely be informed by your knowledge of theory as as well as your experience of, you know, working with children but. You're not going to be asking about the three or just the three or four things that you know are good evidence based practice in a particular situation. You can be more a wide ranging in what you're trying.
Mechanisms		
Challenging existing thoughts and ideas	EP 6	In a good dynamic assessment setting. Children are going to do things that maybe you didn't realize they could, or maybe none of their teachers realized they could.
Providing the opportunity for an exchange of ideas		
Developing a shared understanding with school staff.	EP 6	Yeah, yeah, I mean that that point about having the shared understanding of what you're doing with the school staff and then being on board with it, I think it's very important. I mean, it's a it's it's one of those things where sometimes if you read a dynamic assessment report and the and the recommendations for teaching strategies and mediations, it can sound a bit general.

		If someone's been well with you, they know exactly what you mean.
		And they'll be quite clear examples.
		So I mean I I I do use standardized assessment, I mean this is not discussion about standardized assessment but and it's uh I use dynamic assessment more when I have that level of confidence in the staff that they will be with me they will be they will have the person I'm with is someone who's but firstly is an effective change maker someone who can actually make things happen and that they are a good teacher who's gonna be able to do mediation with this child in the future. that kind of thing.
		I mean it it if I was in a school where I really felt I needed to make, I really felt I needed to argue against the school's conception of the child.
		You know, they had a really negative conception of the child.
		I'm not sure I'd feel confident using dynamic assessment simply because they wouldn't take it on board and I'm expecting people who use it more to disagree with that and say how and say that they they can do that.
		But I mean, I I would feel tentative in that in that kind of situation where I I wasn't sure about the as in the mechanisms there, the shared understanding with the school staff.
E	EP 6	But you didn't have that situation we were talking about there, about the shared understanding.
		Umm now I I don't know that I would feel confident to use dynamic assessment and be able to make it work in that context.
E	EP 7	Dynamic assessment is almost you're there together with the child it's quite it is empowering.

Creating an environment that supports the child to experience autonomy and competence		
	EP 6	I've done it with older students and it's been the young person and I like the the 16 word memory task I've, I've done it with the older students and they come up. All I'm doing is providing the repeated trials and they come up with all the strategies for memory
	EP 5; EP 4	EP 5 23:24 But even then, you're still providing that positive. But when they got the right support, yeah, they did it. EP 4 23:27 Yeah, they could achieve, you know. Yeah, yeah.
	EP 4	I said I think the mechanisms one an environment is created that supports the child to experience autonomy and competence. I think that's a really nice line, I think that's that is what you aim for in dynamic assessment I think that's really nice. Yeah adapting to the needs of the child.

	EP 5	I think that's why I really like the complex figure because there's that, like you're gonna do on your own, but then you know, you get to say, actually, but now I'm going to I'm going to help you because we're going to I know you can do better and I want you to to help you do better. And we're going to get to that stage where you're really pleased with your drawing and that's I think that's a really nice. It's quite a structured in that way that you, you, you kind of have those processes go through, but then you can say uh, here, yeah, now we're gonna do it together and we're going to do this amazing bit of work together.
	EP 5	Yeah I think that competence is really important, isn't it? You know you're the aim is that they experience that competence. I guess and you'd have to feel competent enough to get to that, achieve that and they have to feel confident with their own competence don't they.
	EP 7	children tend to be on board, generally skip out when you finish because they've left feeling a sense of accomplishment
EPs actively consider and adapt mediation to the needs of the child during the DA task	EP 5	And I think dynamic assessment is holistic and standardised can also be holistic, but dynamic that you've you've really got that freedom to hypothesise, think about, go down different avenues, you know, if something's not working completely change it up and you can always get, like we've said before we can always you can always get something out of it, but there's that freedom to completely just go with the flow and see what happens and test out whether it's anxiety, test out, whether it's their learning needs.

EP 4	I think sometimes when you're mediating the amount of mediation you have to give is so high, you know you start, you start with a low level and you're like ohh, you're building it up and up and up and thinking, wow, this child needs so much support to get to this point, and then reflecting that back to school can be really powerful. Just like, actually, to do this, they needed, you know, this. And then currently they're getting this. I think that can be telling, so you can start thinking I need to do this level and suddenly you're kind of it quickly, you quickly realize a lot more is needed, yeah.
EP 6	I mean, there's there's a there's a. What would happen if aspect to it isn't there in in dynamic assessment you immediately find out you know what, what would happen if we supported this child in this way? Uh, whereas with consultation, you're kind of opening up many different possible angles at the teacher could go away and and do.
EP 4	Dynamic assessment's a different way to to see things in a different way isn't it because consultation you're working with them to see things differently whereas dynamic assessment I suppose you're you're acting like you say, you're actively doing the different way potentially, aren't you to give a different perspective.
EP 5	Yeah, I think actively is a really key word that you know we are very we have an active role in that and the child is an active member of the exchange or the the assessment, whatever you call it.

		You're you're both actively together, working in a space and creating that space is is important for them to feel safe and comfortable.
	EP 4	It feels more collaborative with the child in many respects, doesn't it because you are very much working together because you up your mediation, your support if needed, it feels more collaborative, doesn't it?
EPs make observations and link these to existing theory during the	EP 5	I've always got the list next to me because, just as a prompt sheet and I've looked at that list so many times I still wouldn't be able to name all of them.
DA task		Or even some of them, but I think, I think that's the.
		Something that maybe I need to get better at looking actively looking at in the moment because yeah, like you say, I tend to be looking at motivation or engagement or excitement, or umm.
		But actually that, yeah, those cognitive processes are something that kind of come to me afterwards.
		But actually, maybe I should be, do a bit more to actually really look at them in the moment.
	EP 6	Is it easier to be metacognitive than cognitive, you know, in dynamic assessment.
	EP 4	So I think I think dynamic assessment is a huge working memory load.
		There's so much you're holding on to in term of the mediation, thinking about the model, think of all different aspects.
		It's a lot. It's a it does feel a lot, doesn't it?
		Yeah, I think you're right.

EP 6	I think sometimes having that list, in fact, I sometimes take, you know, having it with you when you're doing it does help to hold something else, like next to your rather than all up here. I'm I'm looking at the last one on the mechanisms. The bit about how it relates to existing theory.
	I think I often find, I think I have said of useful in situations where. Maybe there isn't much existing theory, so so I mean if if you're working with uh, I know it's a 5 year old with autism for example your your initial conversation is is there, there's a, there's a good body of theory, you know, evidence based practice about it, what can be helpful for children with autism and if if a school is not, for example, using a visual timetable I'm probably
	at some point gonna ask him about it, whether they're considered it. Have they tried and it didn't work or or or you know what's going on? And I think dynamic assessment.
	Allows allows you to go a bit more towards practice based evidence. Uh, I mean, it doesn't abandon evidence based practice, but it allows you to do practice based evidence because you can try out lots of different things
EP 5	And maybe there's something about just that reflective practice and being aware of your previous experiences, your previous, you know, you your maybe implicit biases that might impact how you interpret it, which should be the case with standardized as well. But I guess you're in the moment you're in. You're interpreting it all the time in the moment, aren't you during dynamic and just I guess
	being reflexive of what's going on around you and the decisions you're making is important as

		well and maybe doesn't need to go into a report unless it's really vital but it's important to acknowledge when you have hypothesizing I guess.
Outcomes	EP5	Umm, I think I think I was initially quite drawn to the outcomes umm because I think they really do kind of capture what I hope dynamic assessment does achieve. Particularly around narratives and hope umm and also that kind of yeah, that impact on the understanding of how they learn as opposed to what they can't do, which standardized assessments tend to focus on umm so yeah that part I think really does nicely capture what not to say the others don't but I think that really does capture what, why an EP would use dynamic assessment, why we'd want to. And I think, I think it encourages others to focus on that process of learning rather than the outcome of learning. Umm and I think, yeah, that's kind of captured really nicely.
	EP4	Yeah, I'd agree. Like the outcomes list, I think it's really nice. And yeah, as [Name] said. You hope that's kind of what is that might be some reasons you choose dynamic assessment and that you'd hope that it would come out from it. Definitely thinking about some previous example I've done, I think that it does hit some of those outcomes definitely

	EP 5	Yeah agreed other than the child self-perception of the other three outcomes could easily be consultation Umm so I guess there are that hope, hopefulness marries up really nicely, I think.
	EP 4	Yeah, it's that same in terms of EP consultation, isn't it? It's so hard to pin down, but, you know the change and and the progress from things as well like that. Umm.
Understanding of factors impacting learning for the child increased	EP6	I like the focus of it's on on the the learning process, so it's not about umm defining the child so much. It's about that the process of learning how the child learns.
	EP6	the nature of dynamic assessment you you can always make some interpretations. From what happened if even if it's only you know this child is profoundly distracted when this kind of thing happens and that leads to umm suggestions about ways forward.
	EP4	And I think that fits in well with your last point on the outcomes, understanding the factors impacting learning for the child are increased and I think it I think it's again standardised like you say, it's the safety in that because it's the set approach, but in dynamic assessment so I'll often use it for children who you know I've got really low attention or really high SEMH needs really low confidence because I think it helps you understand how those factors actually impact, because you can kind of help the child to contain that to see what needs to happen. With standardised assessment it's a bit, I know we always seem to compare it, but it it kind of helps to think about it, doesn't it?
		You know then, if they're completely distracted and can't do it, if you can only give set instructions and they can't engage with that task, stay in a classroom, but dynamic

	assessment, you can kind of look at what helps them to hold their attention or to manage their low confidence. So I think it really fits the understanding of factors impacting, thinking about like affective factors I think is really high in dynamic assessment and really allows you to explore those factors more than other assessments around learning.
EP 4	I think it really highlights that zone of proximal development doesn't it, it's like you need to provide this scaffold to help them to succeed, because often it's sometimes really high needs, it's they're not providing enough of the scaffolds, they can't ever achieve what they're kind of trying to get them to achieve because they need more, yeah.
EP 6	even something like that gives you an understanding that this child hasn't hasn't signed up to these sort of academic idea of accuracy here, he's he's involved in his own creativity at this point. So I mean, you, you even that there where you know that's an example where I find it very
	difficult. Uh, it's still, but it still said more, said more information about the child's learning than a standardized assessment would've in in that case.
EP 4	I had one recently, actually, that your story reminded me of I did the CITM, this young person again, he's really dysregulated and he was doing really well and he showed like he was, you know, you could model how to do it and he was taking on board, he was doing it all on his own then a staff member came to the door and said your mum, his mum's here to see you in a minute and I was like, OK, great.

	And literally did the next problem and all his problem solving accuracy went out the window completely.
	He couldn't do it suddenly.
	And you're like, that's interesting information.
	Like the minute there's a distraction and a, you know, a kind of emotional rise.
	All this problem solving all his accuracy, all his accuracy completely gone.
	It was OK.
	Yeah, you can see why then he's not engaging in much learning in the classroom, so there's a lot of that distraction constantly going on, it just it went out the window for him completely.
EP 6	We are talking a lot about self-perception, perception and other sort of emotional factors.
	Now that the real dynamic assessment heads also consider cognitive factors.
	I I mean, I I feel less confident about the, the the you know, the the sort of and more sort of hardcore cognitive factors.
EP 4	It's all information, isn't it, I think that's the joy of dynamic assessment it's all information.
EP 6	I mean, it's like, you know, again in comparison with standardized like, Mr Wechsler claims that
	his assessment is thorough and uh as assesses all all elements of cognitive development, I think you wouldn't really make that claim about your dynamic assessment, would you?

		Because it's so individual, because you probably haven't had long enough to be to cover all areas of of you know, motivation and cognitive development. You've you. It's it's important information, but it it's is the truth, but it's not the whole truth
	EP 4	I think that's true of any assessment though, because any, anything you're gonna do, there's so much stuff around all different areas isn't there? You're never gonna go and you'd be there for days I mean and probably still not know all the
		information So it's like, what's that helpful next step to move this situation forward?
		And I think sometimes that's when you're using dynamic assessment what's the helpful next step
		What's the different narrative around this child that's going to move them forward or what's the mediation is going to help them move that forward?
		Like, what's the useful next step and then moving from there, then through that plan do review process.
		Doesn't need to answer all the questions just needs to know what's the next step to help that child move on in terms of their confidence or their learning by.
The narrative around the child becomes more hopeful	EP 7	I like those words hopeful positive, you know, moving forward, whereas I yeah, I see standardized assessments very closed and you're clarifying what they know already.

	EP 4	Yeah, thinking about change of perspective I did some recently with a young person who I spoke to them first, they weren't, he wasn't making any progress and they weren't sure if it was because of his, a learning need or high anxiety, he was showing very high anxiety and dysregulated in school quite a lot.
		And we had a chat and he shared a lot about anxiety and peer interactions and things, did some dynamic assessment, and actually he performed really well.
		Could problem solve really well, do lots of things.
		We talked to the SENDCo about actually his high anxiety is like the key barrier to learning, not not the learning and that really kind of shifted for them their approach with him in supporting that rather than the learning, so actually he could show that he could do a lot of the problem solving and memory tasks.
		And you know, once he was calm one to one and wasn't feeling anxious, he could actually achieve really well.
Child self-perception becomes more positive		
School staff do something different to support the child	EP4	I think dynamic assessment, I mean in my perception anyway links more to classroom practice in some sense because the mediation you're thinking what needs to happen to help this child to learn and succeed.
		So when you're feeding back to school staff that feels like a more than, say, a standardised assessment, we you're just saying this is what they can't do so you might need to do this.
		It's saying OK by doing these things I should then be able to engage in learning to

	I suppose that's that is probably around staff do something different to support the child probably fits into that bit that they I think about their kind of what they're doing with the child and the mediation links to that bit
EP5	that it offers real real world real time practical solutions or strategies for staff to consider using. Umm. And it highlights exactly what that child needs rather than yeah, like [Name] said, guessing what you know, based on the score, what they might need or might be useful. It kind of removes that need for trial and error sometimes because we've already gone through that through the dynamic assessment.
EP6	It's an approach that allows you to explore in a hopeful way what helps the child. And come up with, you know, genuinely practical ways forward.
EP5	And that comes with pressure, because actually, you know the there is a there's a pressure in delivering standardised assessments because you have to get it right in order for it to be valid. But actually it is very clear how to do it right. If you follow a set of instructions. There are no instructions for dynamic assessment really and that that comes with you know you you've you're putting yourself in that position where you feel like you need to come out with this, these strategies, that mediation, you sometimes feel, that pressure that it needs to work for it to be a useful use of time, but actually sometimes if mediation doesn't work actually that can tell you as much as when it does work

	But I think there's that pressure which might put people off, I don't know, I don't know, but it makes it seem a bit more daunting potentially.
EP7	Well, I find so I use dynamic assessment a lot and I would find a standardized assessment you're just clarifying for me you're just clarifying what that teacher generally knows already.
	Whereas dynamic assessment you can you're exploring with that child or exploring with that member of staff to find actually things that move them on and they didn't know already.
	Umm, so I do I see them incredibly differently.
	I think one's very opening and one's very closed doesn't move on, doesn't help to move move anywhere.

Appendix K: Ethics Application and Approval

Original Application

Ethics ETH2223-1401: Miss Josie Newman

Date Created06 Feb 2023

Date Submitted 24 Feb 2023

Date of last resubmission 17 Apr 2023

Date forwarded to 17 Apr 2023 committee

Researcher Miss Josie Newman

Category PGR

Supervisor Dr Alistair James

Faculty Faculty of Social Sciences

Ethics application

Applicant and research team

Principal Applicant

Name of Principal Applicant Miss Josie Newman

UEA account XXX@uea.ac.uk

School/Department

School of Education and Lifelong Learning

Category

PGR

Primary Supervisor

Name of Primary Supervisor <u>Dr Alistair James</u>

Primary Supervisor's school/department

School of Education and Lifelong Learning

Project details

Project title

Using a Realist Evaluation to Explore How, Why and When Educational Psychologist Use of

Dynamic Assessment has Positive Outcomes

Project start date

01 May 2023

Project end date

01 May 2024

Describe the scope and aims of the project in language understandable by a non-technical audience. Include any other relevant background which will allow the reviewers to contextualise the research.

Dynamic assessment (DA) is a method of assessment Educational Psychologists (EPs) can use when working with children or young people. The process of DA as used by EPs typically involves an exploration of cognitive, affective and motivational factors impacting learning, and mediation of a task to support the learner. DA can be seen as an alternative to more traditional, static assessment methods. It has been suggested that DA might offer an alternative approach that is more empowering, person-centred and better supports inclusive practice.

Small-scale, qualitative research suggests that the use of DA by EPs can have positive outcomes for children, teachers, parents, and the EP. However, there is no empirical literature exploring the contexts or mechanisms that contribute to positive outcomes, and this has been identified as an area for future research. It is suggested that future research into DA could adopt a realist evaluation methodology to further explore factors which make it more likely that DA will result in positive outcomes.

The research will explore contexts and mechanisms that contribute towards use of DA by EPs having positive outcomes and consider how, why and when these occur. The study will follow a realist evaluation methodology, developing programme theories recognising that outcomes are the result of mechanisms triggered in specific contexts. Realist evaluation methodology seeks to answer 'What works, for whom, in what circumstances?' (Pawson & Tilley, 1997), and is often used to evaluate interventions in healthcare.

Main research question:

• What are the contexts and mechanisms that contribute towards EP use of DA having positive outcomes?

Sub-questions:

o What are the outcomes that occur when EPs use DA? o What are the mechanisms that contribute to these outcomes occurring when EPs use DA? o What are the contexts that support these mechanisms and outcomes to occur when EPs use DA?

Provide a brief explanation of the research design (e.g. interview, experimental, observational, survey), questions, methodology, and data gathered/analysis. If relevant, include what the participants will be expected to do/experience.

Before data collection, the researcher will conduct a literature review and tentatively develop programme theories consisting of contexts, mechanisms and outcomes. This provides some initial, tentative theories to be explored, and shapes the researcher's thinking and questioning for the first stage of data collection.

The study will include two phases of data collection and analysis. The first phase will be exploratory and theory gleaning. It will involve an observation of the DA process, a semi-structured interview with the pupil (expected to last around 10 minutes), and initial, individual semi-structured interviews with the teacher and EP. The teacher and EP interviews will be virtual, lasting around 30-40 minutes.

Anonymised notes only will be used to capture data from observation and child interview, whereas the teacher and EP interviews will be audio and video recorded and transcribed, additional to notes. Audio recording is essential to ensure integrity of the analysis, and is not optional to EP/ teacher participants. Data will be analysed using thematic analysis to identify the context, mechanisms and outcomes important in DA, and form a programme specification and hypotheses.

The second phase of data collection will be theory refining, and the programme specifications will be discussed in second individual semi-structured interviews with teachers and EPs. These will be virtual, last around 30-40 minutes, and will be recorded, transcribed and analysed using thematic analysis. This second phase of data analysis will be used to adapt and refine the programme specification. Data will not be collected from children in this phase.

Between three and five participants will be recruited from each group, although it is not necessary that these individuals are involved in the same 'case'. Children are likely to be aged between 7 and 16 years old, and the researcher will not have any prior relationship with them.

Detail how any adverse events arising in the course of the project will be reported in a timely manner.

If the researcher becomes aware of any adverse events arising from the project, they will inform their supervisor and the ethics board via ethics monitor as soon as possible. If necessary, UEA's Procedures for Dealing with Allegations of Misconduct in Research will be followed.

Will you also be applying for Health Research Authority approval (HRA)?

No

Indicate if you are applying for approval for an experiment to be conducted in the School of Economics' Laboratory for Economic and Decision Research (LEDR).

No

Is the project?: none of the options listed

Does the project have external funding administered through the University's Research and Innovation Services (RIN)? No

Will the research take place outside of the UK?

No

Will any part of the project be carried out under the auspices of an external organisation, or involve collaboration between institutions? Yes

Do you require or have you already gained approval from an ethics review body external to

UEA?

No

Does this new project relate to a project which already has ethics approval from UEA?

No

Research categories

Will the project include primary data collection involving human participants?

Yes

Will the project use secondary data involving human participants?

No

Will the project involve the use of live animals?

No

Will the project have the potential to affect the environment?

No

Will the project have the potential to affect culturally valuable, significant or sensitive objects or practices?

No

Will the project involve security sensitive research?

No

Will the project involve a generative Artificial Intelligence (AI) tool?

Human participants - selection and recruitment

How many Participant Groups are there who will receive tailored participant information?: Three

Name of Participant Group 1.

Educational Psychologists

Name of Participant Group 2, if applicable.

Teachers

Name of Participant Group 3, if applicable. Young people

How will the participants be selected/recruited?

The participant sample will be purposive. EPs in two areas of the placement service will be asked to contact the researcher if they are eligible and interested in taking part. EPs will then be asked to identify eligible teachers and pupils (via parents), and ask them if they would be happy to be contacted by the researcher to find out more information about the study. The headteacher of the school will also be contacted as a gatekeeper, for permission for the research to take place in the school.

Teachers and parents (acting on behalf of pupils) who are eligible and have expressed interest in being part of the research will be sent the details of the study by the researcher.

It is hoped that between three and five participants from each group will be recruited and will take part in the research. It is felt this is both a sufficient and achievable number of participants. It is not anticipated that the number of interested participants will exceed the amount of data required. If this does become the case, the researcher will not recruit any further teachers or pupils (via parents). The possibility that participation may not be needed if maximum numbers are reached is stated on the invitation emails and participant information sheets. Any additional potential participants expressing interest in participation will be thanked for their interest and informed that no further participants are required.

In terms of UEA participants only, will you be advertising the opportunity to take part in this project to?:

None of the above (i.e. UEA's Student Insight Review Group (SIRG) does not need to be informed)

What are the characteristics of the participants?

EPs working within the researcher's placement EPS who have used DA in their practice at least three times in the past year will be eligible for participation. 'DA' will be broadly defined as using a mediated learning task for the purposes of assessment. Initially, EPs who work in the two areas closest to the researcher's base will be invited to take part in the study. If sufficient participant numbers are not recruited, the invitation to participate may be extended to EPs in all areas of the service.

Pupils will be eligible if an EP is going to use a DA activity with them as part of an EP involvement. These pupils are likely to be aged between 7 and 16 years old, as this is the age with which EPs are most likely to use DA in their work. In addition, pupils are likely to have some additional learning needs, as this is likely to be the reason that EP involvement and assessment is taking place, although the nature of these may vary. Likewise, teachers will be eligible if they have been involved with the DA, either through observation, discussion with the EP afterwards, or reading the report detailing the DA and interpretation. These teachers are likely to be class teachers, or Special Educational Needs and Disabilities Coordinators (SENDCos).

Will the project require the cooperation of a gatekeeper for initial access to the individuals/groups to be recruited? Yes

Who will be your gatekeeper for accessing participants?

A Senior or Principal EP in the service will be asked to send the study information to all EPs in two areas of the service. EPs who are interested in taking part will then be asked to act as gatekeepers to ask eligible teachers and parents (on behalf of pupils) if they would be happy to be contacted about the study.

The Headteacher of the school where the observation and child interview will take place will also be considered a gatekeeper, and will be contacted via email for permission to conduct the research on school site.

How and when will a gatekeeper permission be obtained?

Senior or Principal EPs will be emailed when ethical approval has been obtained. Information about gatekeeping will be included in the invitation email for EPs, and this can be discussed further once they have expressed interest in the study.

Headteachers will be emailed when a suitable 'case' has been identified by EPs, and parents have expressed interest in being part of the research.

Provide any relevant documentation (letters of invite, emails etc).

How will you record a gatekeeper's permission?

Gatekeeper permission will be recorded via email. This will be the case for Principal/Senior EPs, EPs and Headteachers.

Is there any sense in which participants might be 'obliged' to participate?

Yes

If yes, provide details.

This is always a potential issue when people are being asked to do something, as EP participants might feel that they need to be supportive of the researcher who is also a Trainee EP in the service. In addition, parents, teachers and pupils could interpret the study involvement as a necessary part of the EP involvement. For parents and pupils there could also be a power dynamic which results in agreement to participate even if they are unsure, as they are being asked by a professional.

What will you do to ensure participation is voluntary?

All participant information sheets will emphasise the voluntary nature of the study, and that there will be no consequences for not taking part. In addition, on the teacher, parent and pupil information sheets it will be made clear that choosing to not take part in the study will not impact the overall EP involvement which will go ahead regardless, and consent for the study will be sought after initial consent for EP involvement so that the two are not conflated. Participants will be followed up once if no response is given, but after this it will be assumed that participants do not wish to take part in the study, and this will be communicated.

Will the project involve vulnerable groups? Yes

If yes, explain the necessity of involving these individuals as research participants and what will be done to facilitate their participation, or the participation of people with physical disabilities.

This research will involve pupils aged between 7 and 16 years, and are likely to have Special

Educational Needs, therefore would be classed as a vulnerable group (BPS Code of Human Research Ethics 4.4).

It is felt to be necessary to include pupils in this research, as they are a key stakeholder in the DA process, and realist evaluations aim to gather data from key stakeholders. Gathering views of pupils on processes that involve them is important to the researcher's values, and previous research often does not include this.

Parental consent will be required. To facilitate participation and informed consent from pupils, parents will be asked to share an accessible young person consent form with the child, and discuss it with them in line with their level of understanding. If pupils would like to take part, they will give written consent on the young person consent form, and parents will be asked to confirm that they have discussed the study with the child on the parental-guardian consent form. This can also be done by teachers, if parents prefer. It will be assumed that the pupils in the study will be Gillick competent to give informed consent, due to their age and nature of the study. However, I am aware that some pupils might find the wording of the young person

information sheet and consent form complex, which is why I am requiring an adult to support understanding and completion of the consent form.

Pupils will be reminded of the implications of being in the study that participation is voluntary at the start of the observation/ interview, and will be monitored for signs of assent throughout. The interview will be kept short, will be immediately after the DA takes place to support retention, and visuals can be used to support understanding.

Will payment or any other incentive be made to any participant?

No

If appropriate, upload a copy of the proposed advertisement, including proposed recruitment emails, flyers, posters or invitation letter.

How and when will participants receive this material?

EPs will receive the invitation to take part in an email sent out by the gatekeeper, and will judge if they are eligible participants. Teachers will receive an invitation email if they have indicated to the EP that they are happy to be contacted about the research. Parents will receive the invitation if they have indicated to the EP that they are happy to be contacted about the research, and the Headteacher of the school has given permission for the research to take place. A phone call will additionally be offered if parents wish to speak to someone and go through the study information. A paper copy can be provided if necessary, for example if parents do not regularly use email communication.

Pupils will receive information through their parents at the same time as the parent information (or teacher if this is parental preference), and they will be reminded of the implications of being in the study and the voluntary nature at the start of the observation and interview session.

Include any other ethical considerations regarding participation.

The study will be voluntary to participants, and informed consent will be gained prior to participation (BERA 8, 9; BPS CoHRE 4, 4.1, 4.11; HCPC SoCPEs 1.4; BPS PG 6). The voluntary nature of the study and the study aims and objectives will be made clear on the participant information sheet. Participants can withdraw their data up to the point it is fully anonymised, and they will be informed of this (BERA 31).

Consideration will be given to working with children and young people, as they are considered vulnerable participants (BPS CoHRE 4.4). As participants are likely to be under 16 years of age, parent or carer consent will be required in addition to written child consent (BERA 23, 24, 25; BPS CoHRE 4.5), and parents will be asked to discuss the study with their child. This is on the invitation email and parental-guardian information sheet and consent form. Therefore, study information and request for consent will aim to be given in a way that is accessible to the

developmental stage of the child or young person (BPS CoHRE 4.6). Parents can indicate that they would prefer teachers to do this, if they prefer.

It is important to consider that the researcher will hold a dual role and relationships (BERA 19; HCPC SoP 2.8), as they are also a TEP in the service. It will be emphasised to the participants that the individual is acting in the role of researcher, rather than a TEP, and a UEA rather than the LA email address will be used for the research. Participants will aim to be recruited from schools which the researcher has not previously been involved with in their role as a TEP. In addition, gatekeepers will be used to recruit participants.

Human participants - consent options

By which method(s) will consent to participate in the research be obtained?:

Participant Information Sheet and Consent Form

Human participants - information and consent

Participant Information and Consent

Will opt out consent for participation in the research be used?

No

You can generate a Participant Information Text and Consent Form for this application by completing information in the Participant Information Text and Consent Form Generator tab. Alternatively you can upload your Participant Information Text and Participant Consent Form which you have already prepared. Confirm below:

Upload prepared Participant Information Text and Consent Form.

Upload the Participant Information Text and Consent Form.

Enter participant group number and name.

Educational Psychologists

Enter participant group number and name.

Teachers

Enter participant group number and name.

Young people

When will participants receive the participant information and consent request?

EPs will receive the participant information and consent request with the initial study email sent out by the gatekeeper. Teachers will receive the information and consent form when they are identified as eligible participants and have given permission to be contacted.

Pupils will receive the information and written consent request ahead of the study via their parents, who will be asked to explain the study and discuss participation with them at an appropriate level of understanding. This is in the invitation email and parent information and consent sheet. If parents indicate that they would rather this was done by teachers, the young person information sheet and consent form will be sent to teachers. Pupils will give written consent by signing the young person consent form, which will be returned to the researcher.

BPS Codes of Human Research Ethics 2.1, 4, 4.1 and 4.11, HCPC Standards of Conduct, Performance and Ethics 1.4 and BPS Practice Guideline 6 will be followed here in relation to gathering informed consent.

How will you record a participant's decision to take part in the research?

EPs and teachers will be asked to sign the appropriate participant consent form. This can be a paper copy, or can be returned via email, for example using an electronic signature or scanning and emailing a signed consent form.

For pupils, written parental consent will always be given, either as a paper copy or via email. In addition written pupil consent will be sought. Parents will be asked to share the information sheet and consent form, and discuss participation in the study with their child in an accessible way at an appropriate level of understanding. If the pupil is happy to be part of the research, they will sign the young person consent form and this will be returned to the researcher prior to the observation and interview. Parents will be asked to confirm they have done this on the parental-guardian consent form. This may be done by teachers, if parents would prefer. The pupil will be given a reminder of the implications of the study, the voluntary nature and their right to withdraw at the start of the observation and interview, and will be monitored for signs of assent throughout.

Parental/Guardian Information and Consent

Are you asking for parental/guardian (or other responsible person) consent?

Yes

You can generate a Parental/Guardian Information Text and Consent Form for this application by completing information in the Parental/Guardian Information Text and Consent Form

Generator tab. Alternatively you can upload your Parental/Guardian (or Other Responsible Person) Information Text and Consent Form which you have already prepared. Confirm below:

Upload prepared Parental/Guardian or Other Responsible Person Information Text and Consent Form.

Upload the Parental/Guardian (or other Responsible Person) Information Text and Consent Form.

Enter participant group number and name.

Young people

When will parents/guardians (or other responsible person) receive the parental/guardian (or other responsible person) information and consent request?

Parents or guardians will receive the information and consent request via email when their children have been identified as eligible participants, they have given permission to be contacted, and the

Headteacher has given permission for the research to take place in the school. A paper copy will be provided if necessary. A phone call will also be offered if parents wish to speak to someone and go through the study information.

How will you record a parent's/guardian's (or other responsible person's) decision regarding consent for their child (or other vulnerable person) to participate in the research?

Parents or guardians will be asked to sign the appropriate consent form. This can be a paper copy, or can be returned via email, for example using an electronic signature or scanning and emailing a signed consent form.

Human participants - method

Which data collection methods will be used in the research?:

Interview

Observation

If your research involves any of the methods (including Other) listed above, upload supporting materials.

How have your characteristics, or those of the participants influenced the design of the study or how the research is experienced by participants?

The choice of research topic is a professional interest of the researcher. In addition, it is hoped to have a benefit for the EP profession, of which the researcher is part of, and pupils and teachers who EPs work with. This is important to the researcher and it is hoped that EPs and teachers will share this view. It will be emphasised to

participants that any of their thoughts and reflections are valued, so that participants do not feel under pressure to provide certain answers.

It is important to the researcher that participation in the research is a positive experience, and as convenient to participants as possible. As a Trainee EP, the researcher appreciates the demands on the time of EPs and teachers. This has led to proposing virtual interviews which can be arranged at a time to suit participants, and interviews will be approximately 30-40 minutes in length, to limit the time commitment.

Consideration has been given to participation from pupils. By placing the interview immediately after the DA session, it is hoped that disruption to the pupil will be minimal, and they will be able to recall the session. In addition, the interview will be brief, in recognition that pupils with additional learning needs might have limited attention. Interviews with pupils will not be recorded, and instead notes will be taken. This will reduce the sensitivity of the data and may help them to feel more comfortable. It is possible that pupils will give answers they feel the researcher wants to hear, as they will be perceived as a professional, and this will be considered in the analysis. In addition, it will be emphasised to pupils that there are no right or wrong answers and they can say what they think.

Will the project involve transcripts? Yes

Select ONE option below: Transcription software **If yes provide details.**

Microsoft Teams automatic transcription software will be used for initial transcription of EP and teacher interviews. These will then be manually checked for accuracy by the researcher. It is understood that UEA has a Data Processing Agreement with Microsoft which ensures data is stored safely and securely.

Any handwritten notes (for example from the observation and child interviews) will not be processed by any external transcription software, and instead will be scanned into an online file with paper copies destroyed.

Provide an explanation if you are not offering the participant the opportunity to review their transcripts. N/A

Will you be capturing photographs or video footage (digital assets) of individuals taken for University business? No

Is this research using visual/vocal methods where respondents may be identified?

No

Will it be necessary for participants to take part in the study without their knowledge and consent at the time? No

Will deception or incomplete disclosure be used? No

Will the participants be debriefed?

No

Will substances be administered to the participants?

No

Will involvement in the project result in, or the risk of, discomfort, physical harm, psychological harm or intrusive procedures? No

Will the project involve prolonged or repetitive testing?

No

Will the project involve potentially sensitive topics?

No

Will the project involve elite interviews?

No

Will the project involve any incitement to, encouragement of, or participation, in an illegal act (by participant or researcher)?

No

Will the research involve an investigation of people engaged in or supporting activities that compromise computer security or other activities that may normally be considered harmful or unlawful? No

Does the research involve members of the public in participatory research where they are actively involved in undertaking research tasks?

No

Does the research offer advice or guidance to people?

No

Is the research intended to benefit the participants, third parties or the local community? Yes

Provide an explanation.

Previous research has suggested that the use of DA appears to be a complex and often poorly defined area of practice for EPs in the UK (Green & Birch, 2019). This study will explore the contexts and mechanisms that contribute towards the use of DA by EPs having positive outcomes and consider how, why and when these occur. It is therefore hoped that findings will provide a greater understanding of DA, and contribute to the evidence-base. This will support EPs to make informed choices about using DA, and aid justification of decisions. By considering the contexts in

which these positive outcomes occur, it is also hoped that the research will lead to suggestion of 'best practice' approaches. This is anticipated to support the development of guidelines and regulation for the training, supervision and practice of DA by EPs in the UK, as identified as an area of need by Green and Birch (2019). This is important to ensure that DA practice amongst EPs is of high quality, and therefore can have maximum positive outcomes for CYP and those who support them.

The proposed research is thereby contributing to the development of knowledge, understanding and supporting beneficial outcomes (BPS Code of Human Research Ethics 2.2 and 2.3; scientific integrity and social responsibility).

For EPs and teachers, it is hoped that the opportunity to reflect on and discuss practice will be positive. For pupils, it is hoped that being asked for their views will be a positive experience, and will support them to feel that their voice is being heard.

What procedures are in place for monitoring the research with respect to ethical compliance? UEA's protocols for research ethics will be followed at all times. The researcher will be responsible for reporting any ethical breaches to their supervisor, via Ethics Monitor and to the Chair of Ethics and Head of School as required. HCPC Standard of Proficiency 7 will be followed with regards to managing concerns. The researcher will meet with their supervisor throughout the process, where ethical compliance can be reviewed. If necessary, UEA's Procedures for Dealing with Allegations of Misconduct in Research will be followed.

Does the study involve the use of a clinical or non-clinical scale, questionnaire or inventory which has specific copyright permissions, reproduction or distribution restrictions or training requirements? No

Include any other ethical considerations regarding data collection methods.

The research is not judged to cause any significant risk of harm to participants that is greater than encountered in ordinary life, as DA is often a typical part of EP practice (BERA 6, 34; BPS CoHRE 2.4; HCPC SoCPE 6.1, 6.2). Participants will be eligible for this study when an EP is already planning to work with them, and to use DA for the purpose of assessment. Therefore, other than the interviews, participants will not experience anything additional or different to typical practice. It is possible that speaking about learning experiences might be difficult or possibly upsetting for pupil participants. The researcher is mindful of this, pupils do not have to answer questions if they do not want to, and the interview will be stopped if participants become upset.

Participant data will be kept confidential (BERA 40, 50; BPS CoHRE 5; HCPC SoCPE 5.1, 5.2; HCPC SoPs 7.1, 7.3; BPS Practice Guideline 7), with pseudonyms used and data stored and reported anonymously. The exception to this will be safeguarding, outlined later on in the form, and participants will be informed of this. In addition, child participants will be told that information can be shared with others if

they think this might help support them. This would be discussed with them first, and they would give verbal consent, as these would not be considered safeguarding issues. An example of this would be where a child becomes upset about something discussed relating to their learning and it might help to have an adult check in with them later on in the day or reassure parents, or they might share that a particular strategy helped them in their learning, which could help their teacher support them if shared.

Health and safety - participants

Is there a possibility that the health and safety of any of the participants in this project including a support person (e.g. a care giver, school teaching assistant) may be in question? Yes

If yes, describe the nature of any health and safety concerns to the participants and the steps you will take to minimise these.

As with all EP work, safeguarding is important to consider, as there is a chance that a child or adult may make a disclosure during the researcher's interactions with them, particularly during the interviews. In addition, although the research is focusing on DA, which is a typical part of EP practice, this may lead to discussion of the pupil's areas of strength and need. This could be emotional for some pupils. Safeguarding procedures are therefore outlined below.

Child participants will also be told that information can be shared with others if they think this might help support them. This would be discussed with them first, and they would give verbal consent for this to happen, as these would not be considered safeguarding issues. An example of this would be where a child becomes upset about something discussed relating to their learning and it might help to have an adult check in with them later on in the day or reassure parents, or they might share that a particular strategy helped them in their learning, which could help their teacher support them if shared. Both pupils and parents will be informed of this on their respective information sheets.

What procedures have been established for the care and protection of participants? If participants become noticeably upset by any questions, the researcher will pause and ask if they would like to move on to the next question. Participants will also be asked if they would like a break. Participants will be told that they can end the interview at any point if they wish, and the interview will be ended by the researcher if participants are judged to have become too upset to continue. If any safeguarding concerns arise, the safeguarding protocol will be followed and is detailed below. Appropriate information might also be shared from child interviews with their permission, as outlined above.

Due to the nature of the research topic, it is not anticipated that any follow up care will be required. If interviews do appear to cause strong feelings, participants will be encouraged to check-in with someone they trust, which for teachers and EPs this

might be a line manager or trusted colleague. For pupils this might be a parent or teacher, and with their permission, information can be shared to support with this.

Describe your safeguarding protocol. What procedures are in place for the appropriate referral of a participant who discloses an emotional, psychological, health, education or other issue during the course of the research or is identified by the researcher to have such a need?

On the participation information and consent form, safeguarding will be given as a caveat to confidentiality, and this will also be explained to pupils at the start of the interview

If a pupil makes a safeguarding disclosure, this will be reported to the designated safeguarding lead in the school and usual school and LA safeguarding procedures will be followed. The EP completing the work can also support with the implementation of these procedures. If an adult makes a safeguarding disclosure, this will be discussed as soon as possible with the researcher's supervisor, and a follow-up plan will be decided depending on the circumstances.

The researcher has a current DBS check and photo ID from the placement LA. This can be shared with parents and the school, if required.

What is the possible harm to the wider community from their participation or from the project as a whole?

This research is not anticipated to increase any risk of harm to the wider community.

What precautions will you take to minimise any possible harm to the wider community?

This research is not anticipated to increase any risk of harm to the wider community.

Health and safety - researcher(s)

Is there a possibility that the health and safety of any of the researcher(s) and that of any other people (as distinct from any participants) impacted by this project including research assistants/translators may be in question?

No

Risk assessment

Are there hazards associated with undertaking this project where a formal risk assessment will be required?

No

Work with external partners and collaborators

Provide details of the external organisation(s)/institution(s) involved with this project.

[EPS] Educational Psychology Service, schools where the research will take place.

Has agreement to conduct research in, at or through another organisation/institution been obtained? Yes

Provide details.

[EPS] does not require a separate ethics approval. Undertaking research is understood to be a part of the course the researcher is enrolled in, and is expected, due to previous Trainee EPs having been on placement in this service. Senior staff members in the service are aware of the research and have given verbal agreement for it to go ahead.

Headteachers from individual schools will be contacted as gatekeepers for the research to take place in school.

Upload the correspondence where relevant.

Does any external Co-applicant need to seek ethics approval in connection with this project?

No

Data management

Will the project involve any personal data (including pseudonymised data) not in the public domain? Yes

If yes, will any of the personal data be?: Anonymised and pseudonymised

If using anonymised and/or pseudonymised data, describe the measures that will be implemented to prevent de-anonymisation.

The placement LA will not be named in any publications, with the only information being that it is in the East of England. When data is anonymised and pseudonymised, any information which could be identifying (names or places, for example), will be removed. No key will be kept linking pseudonyms with names.

Any signed consent forms or contact details for feedback will be stored separately to the anonymised and pseudonymised data, with any paper copies scanned to be stored online and then shredded. Both sets of data will be stored in password protected files on a password protected laptop. Audio and video recordings will also be stored separately, and will be deleted once transcription has taken place.

If not using anonymised or pseudonymised data, how will you maintain participant confidentiality and comply with data protection requirements? N/A

Will any personal data be processed by another organisation(s)?

No

Will the project involve access to records of sensitive/confidential information?

No

Will the project involve access to confidential business data?

No

Will the project involve secure data that requires permission from the appropriate authorities before use? No

Will you be using publicly available data from the internet for your study?

No

Will the research data in this study be deposited in a repository to allow it to be made available for scholarly and educational purposes? No

Provide details.

This is a relatively small scale study on a specific area of professional practice. Data is not anticipated to be useful to others, and therefore it is not necessary that data is deposited in a repository.

Who will have access to the data during and after the project?

Only the researcher will have access to the raw data during and after the project. Analysed data (anonymised and pseudonymised) will be published as part of the researcher's Doctoral thesis in May 2024, and may be published in journals or presented at conferences.

Where/how do you intend to store the data during and after the project?

Data will be stored electronically in a password protected file on a password protected laptop. This is sufficient as data is classed as confidential under the UEA Information Classification Policy, due to containing non-sensitive personal information (as defined by the Information Commissioner's Office). Any data on paper (for example handwritten observation and interview notes) will be scanned, stored online and paper copies shredded.

How will you ensure the secure storage of the data during and after the project?

Only the researcher has access to the laptop and file. Passwords will not be shared or recorded.

How long will research data be stored after the study has ended?

Anonymised and pseudonymised data will be kept for 10 years after the study has ended. Any signed consent forms or contact details for feedback will be deleted once feedback has been sent, expected to be late 2024.

How long will research data be accessible after the study has ended?

Anonymised and pseudonymised data will be kept for 10 years after the study has ended. Any signed consent forms or contact details for feedback will be deleted once feedback has been sent, expected to be late 2024.

How are you intending to destroy the project data when it is no longer required?

Data will be permanently deleted.

Amendment

Ethics ETH2324-0656 (Significant amendments): Miss Josie Newman

Date Created 26 Oct 2023

Date Submitted 27 Oct 2023

Date of last resubmission 01 Nov 2023

Date forwarded to 06 Nov 2023 committee

Researcher Miss Josie Newman

Category PGR

Supervisor Dr Alistair James

Faculty Faculty of Social Sciences

Current status Approved

-4.

Ethics application

Amendment type

Type of amendment

Change to research protocol

Is this amendment related to Covid-19? No

Change research protocol

Describe changes

Fully describe any changes and upload revised documentation if there are wording changes.

The original approved ethics application involved two individual interviews with Educational Psychologist participants, spaced a few months apart. The first individual interviews have now taken place with seven Educational Psychologists. I am seeking to amend my ethics application to replace the second individual interview with Educational Psychologist participants with a semi-structured focus group of up to seven participants. All seven participants from the first phase of the research will be invited to be part of the focus group if they would like to be, and they have already given consent to be re-contacted as part of the original protocol. The focus group will take place via Microsoft Teams, and is expected to last around one hour. Once participants have expressed that they would like to be part of the focus group, I will propose three times when this could take place and conduct the focus group at the time when most people can attend. This will be communicated to

participants, as it is anticipated that schedules may not allow all participants to attend who wish to. This is not the only method of feedback from the study, and the feedback mechanisms in the original application are still relevant.

I have decided to make this change as I feel that the discussion between participants will be interesting and valuable for my research. I also hope that it may be a positive and reflective space for Educational Psychologist participants to discuss their practice in dynamic assessment with colleagues. This change would also have a time saving implication for the research process. The purpose of the focus group would be the same as the originally proposed second individual interview, with participants asked to discuss and feedback on hypotheses developed from the first round of data analysis. Participants would be sent these hypotheses in advance of the focus group. I have included a proposed schedule for the focus group below, although as data analysis is in progress specific hypotheses have not yet been determined.

The focus group will be recorded, and participants will be informed of this. Handwritten notes will also be made during the focus group. The notes and recording will then be used to adapt the hypotheses proposed for the final write up of data analysis. The focus group will not be transcribed, and data will be stored in the same way as data in the original application. In the invitation to the focus group, it will be emphasised to participants that participation is voluntary, and I have included the invitation email below. On the participant information sheet, and during the focus group, participants will be asked to keep everything said confidential with exception of any safeguarding concerns. Participants will also be informed that once the focus group begins they will not be able to withdraw their data, as it is a group discussion. This will be included on the participant information sheet and participants will be reminded at the start of the focus group. The discussion will cover aspects of EP professional practice, and the nature of such discussions are usual for EPs, for example within team meetings. If any participants have any concerns about what has been discussed, they can contact me or my research supervisor, as per the original application, and participants will be reminded of this. A participant information sheet for the focus group only has been attached below.

Attach any documentation which relates to the changes described.

Appendix L: Illustrative Interview Data Quotes

Table L1

Additional Illustrative Interview Data Quotes

Themes	Participant number	Quotations
Contexts		
The EP needs others to be on board with the DA process		
School staff are collaboratively involved in the DA process	EP6	I'm not so much just thinking about the dynamic assessment itself, but I'm thinking about the, umm work before and after to plan it and support the school with future planning to crystallize it into something into something concrete that will happen afterwards.
	EP2	Whether or not that always happens is um depend is depending on if the teacher can leave the class
	EP3	And then if possible, then we'll be talking to sort of a key adult, whether that be the parent or somebody at school about those observations and therefore having a bit of a solution oriented conversation about how you incorporate that information into the work that you do going forward really.

	EP6	Umm I also include umm other people in the mediation as as appropriate.
		This is another thing about having the teacher present. Err.
		There's, they they may know quite a lot about the umm how to support the child, and they may have the relationship with the child as well, which can be helpful.
	EP4	So I did it in one of my schools where I got the SENCO to kind of sit in, and I gave her a sheet to look through that looks at kind of different cognitive skills.
		So she was making notes while I was doing it and it's affective factors.
	EP2	It would either be the teacher or the SENCo, depending on.
		Obviously if the teacher's teaching it's sometimes quite awkward to feedback at that point, erm and I'll put it in the report.
		I'll umm, err try to phrase my reports around sort of erm, mediation strategies
		What's helped
		And strengths as well.
The child is collaboratively	EP7	Asking what happens if they get, they find things difficult in class.
involved in the DA process		What, you know, trying to help them think about what's happened, you know, in our session and how might that look in class if something similar occurred.
	EP2	I did make him a little laminated checklist card that he could then take into class of just erm strategies erm such as repeating it to himself, visualizing it.
	EP1	I'll usually try and do a rapport building activity that also often doubles as a dynamic assessment.

E	EP6	if you see the child, you know, using a cognitive skill err which they may not be entirely self aware of, you can sort of pick it up and say I noticed you did this, let's think more about that.
E	EP1	when I do it, I try really hard to spend time checking in with the young person about whether what I'm finding gels with their experience.
		You know what I mean?
		Like this 'I noticed you really approached, that you did a lot of exploratory learning. You tried lots of things trying to figure out what the answer is that, is that normally how you do learning?' And whether they say no or yes is relevant, is meaningful to me.
E	EP6	It's in the way I'm going to present the task to them, so I'm I'm I'm saying not gonna call it a test or an assessment or anything like that, but I'm I'm I'm very likely gonna give them a bit of a umm preparation in advance to say that umm, what we're going to do we're going to do a task which is gonna be.
		The kind of task where you can't do it perfectly first go.
		But then we're gonna talk about how how you can improve it, and then we're gonna have another go and, you know, explain that.
		I'm gonna give you all the help you need to improve what you're doing.
		So so get get them on board with the with the nature of the task.
		So that it's it's not a test where you can be right or wrong.
		It's umm an activity where we're gonna think about how we can im- improve things.

	EP7	at the end often reflecting on, you know what they felt had gone well, what they felt was useful in order for them to be gaining the success that they had
	EP3	And then I think I'd definitely talking about the things that I did that I felt were helpful for them and whether they agreed, whether they agree that that was helpful, whether they notice those things.
	EP2	I try if I've got time to write a letter back for the child to say what strategies were helpful and how.
Communication should be clear	EP1	When I'm working with the young person, I almost always use the Lauchlan type terminology because I think it's more accessible for them.
		Uhh even then, it's, you know, like one of them is exploratory behaviours, isn't it?
		And it's like
		What's an exploratory behaviour?
		It's not, it's not as, umm yea- I always need to explain that umm to them, and maybe even break it down.
		Or like being systematic you know, that kind of thing umm it's hard to like.
		Umm but th- that's the kind of language and I so I tend to break it down and say things like, "oh, you took your time and you tried different things" you know with them.
		That's the terminology for the young person
	EP5	I'll talk to the school about what they want from the assessment, what they need to gain from it

	EP5	I think that's why it's really important to try and keep reports as short as possible because then they're read. Umm. And they can be read again.
		You know, once you've read a 40 page report 20 page report, you ain't gonna read that again.
School staff need to be set up to have realistic expectations of DA	EP4	When they say "can you come and assess" they're often talking about "can you come and do a standardised assessment please and give us the numbers for where they are in relation to their age."
	EP5	I think it's easily not thought of as a cognitive assessment and it is
	EP4	I think sometimes it's then open to the staff then being open to different kind of type, like consultation as an assessment or dynamic assessment as an assessment.
	EP6	Schools are sceptical sometimes.
		That's that that's the thing.
		Umm, there are various other people who feel a lot.
		A lot happier if there are numbers involved.
		You know, if you if you do a a cognitive or other standardized assessment and get some scores
	EP4	I think it's kind of putting it in advance that you know you're not going to get.
		It's looking at how a child learns rather than what they know, so it's kind of looking at, it's looking at holistically, you know, other things involved.

		So things like motivation, anxiety umm and it's not going to.
		I think it's them understanding it won't bring out these figures compared to their age and it's looking at what mediation helps, you know what strategies help them to learn and then we can think about what might be useful in the classroom and, you know, have a collaborative problem solving around that afterwards, that tends to be all that's needed.
The use of DA is an active decision made by an EP within a system		
The context of the work impacts whether DA is appropriate	EP5	it is a cognitive assessment and it is a, you know, an exploration of someone's learning needs, but it is also an exploration of how they learn umm which provides a, you know, a, opportunities to develop and support a young person in the future.
	EP6	I don't think of it as an alternative to standardized assessment, I think it's answering different questions. So I would use dynamic assessment if it's relevant to the questions I wish to answer, or sometimes if I think that cognitive assessment wouldn't get me useful information.
	EP7	When you get a referral and you've spoken to the class teacher, they know the difficulties, they know the barriers.
	EP4	I would think about the times when I would think about dynamic assessment. One is I suppose a school have come to me and said umm "this child's really low level, we've done lots of assessments, they're coming out low across the board, but they're still not making progress, we put stuff into place, they're still not kind of making any progress." They're looking at what strategies can we put into place to support their learning to help them make progress, so I think dynamic assessment's, really useful there.

		Because it links more directly straight into the class.
	EP2	So I might do my standardized, so, part of the triangulation I might try and also do a bit of dynamic assessment alongside.
	EP4	You know, you some children can come out really low on standard assessments because they're too anxious to take part.
		Or they're too low confidence to take part umm so I would definitely use it then because I think you can get more out.
	EP6	I guess when you wouldn't do dynamic assessment, I think that for me a big part of that would be how much I know about the child. So you know, for example, if a young person recently joined the school and they didn't know really very much, or if I've got the sense that the school really had no idea what the challenges were for a young person then I think the standardized assessments do offer those numbers, but they do offer an insight into different areas that maybe dynamic assessment can't do.
	EP7	I use it in all my statutory work I've used it in tribunals
EP use of DA is facilitated in certain situations	EP5	I think having that confidence to know OK, I can go and do that and it will be useful. I think that's, dynamic assessment does take some bravery, because it's non prescriptive and so you are putting a, you have to trust yourself as a practitioner, you have to believe in yourself as a practitioner and I think as a trainee that was terrifying.

	EP1	It requires the EP or the mediator to be in a really good state of mind to work constructively
	EP4	I think then the more you do it you know same as anything when you learn a skill other areas aren't quite such a working memory load. So that kind of helps you to kind of be more in the moment, I suppose, yeah.
	EP3	I think there are times when realistically you have to make a decision that some number crunching is going to be the key to some doors in certain situations.
		I don't like giving in to that, but sometimes it's necessary.
		And it is engaging with the firefighting process, but there are times when a few numbers on a page makes all the difference between a child getting access to the setting they need or not getting in there.
	EP3	I think I'd always choose to use it if I, but I think, unfortunately, a lot of the time I'm rushing about trying to do things, I'm trying to expedite the process, huge time constraints.
	EP1	I trained in [training course provider] and in [training course provider], it's really embedded as part of the course, so I was doing it routinely, even as much as anything else.
EPs believe in and apply the philosophy of DA	EP6	It's not just the assessment of what the child can do and then go away and write that up. It's inherently about how does the child get better at this and how can we help the child to get better at this?
	EP2	It makes me feel better about what I do, and I'm not sort of going in erm just adding to that negative picture sometimes

	EP4	I think for me it's about potential So instead of looking at kind of, you know, here's things they can or can't do, it's looking at the change, the kind of potential of the children and thinking through the assessment, what kind of, what mediation's needed. I think it's a very holistic approach because it takes into account affective factors. You're looking at kind of anxiety, fear of failure, confidence, motivation, so you're looking at all those factors and how they impact as well.
	EP4	always making sure that you're ending at a point that's kind of when they've experienced success.
	EP5	I really wanted to, I think, pursue dynamic assessment
	EP7	I'm a huge advocate of dynamic assessment
	EP7	you're looking for strengths rather than, you know, in a sense, activities where you're looking for them to fail.
DA theory can be applied in different ways by EPs in practice		
DA becomes embedded in EP practice	EP2	I kind of like to think that I use it, it underpins everything that I do, including supervision, including, yeah, a lot of how I think around things. Yeah, I like, for me, it's quite fundamental.
	EP1	I would say I do it as a default unless there's a reason not to do it.

EPs choose to use certain tasks and resources in DA	EP7	I have started doing it, really very much taking four or five of those learning principles and structuring my observations a little bit more in my report writing
	EP7	I will have jotted down which ones I think would meet the areas of difficulty that have been raised so, for example, memory which are the areas that have been raised as difficulty I'll pop those in and see if they'll respond to those.
	EP6	I will sort of have had a conversation beforehand about what kind of tasks they might best engage with.
	EP7	if you pick the right task, they can be quite challenging, and you're wanting them to be challenged
	EP5	In some ways actually you need more stuff because you need lots of different things based on the needs of the child to the age of the child
	EP4	I tend to use a similar kind of, tend to use a set number of dynamic assessments, so I think that helps then, you're not comparing them, but I think it helps to have a view of what it looks like for different children in terms of when you're doing it
Definitions of DA may impact how	EP6	it depends on how clearly you define it
it is applied		I don't really know to what extent you have to be systematic before you can call it dynamic assessment
		it is useful at both ends for various reasons, either at the you know the completely systematic approach where you might use something like the CATM or similar or at the much more sort of part of a holistic assessment when you're just talking to a child.
	EP3	some of the more formalized, structured ways of working with dynamic assessment like Tzuriel for example, or even the CAP.

	EP3	are you aware of the concepts and are you sort of actively trying to apply a sort of relational approach to your assessment, and to see what impact If you observe the child doing something, then you try a prompt or some input, see how it changes how they then approach it. In a sense all that's dynamic assessment.
Theory of mediation is applied by EPs in DA	EP5	for me it's facilitating learning and looking at Vygotsky's kind of zones of proximal development, thinking about that adult that adds something to the learning, you know, having that Vygotsky and having that person who is offering support, who is making that learning more meaningful, making that learning more accessible. You know, what can they learn on their own or what can they learn with, you know for me it is about facilitating learning. It's about supporting that young person to be aware of
		what they're doing, why they're doing it, and how they can get better at it.
	EP4	I suppose it's kind of it's built on kind of Feuerstein's like theory of mediated learning, isn't it? So I suppose the mediation would just be I suppose the feedback you're giving to them to help them to do the task
		I suppose it's your comments, your part of the process in terms of you giving, either giving advice on how to kind of solve things or using questions, so a lot of young people you kind of find that they find it very hard to explain their thinking and we sort of say "so how do you get that answer."

		because that mediation in terms of looking at their planning skills and being able to kind of metacognitive skills. So yeah, the mediation is really just the feedback you're giving them to help them to succeed in the task.
	EP6	there are lots of different levels. So I mean it can be again, it could be supporting the young person to come up with their strategies just having that space for a conversation about what strategies could you use. And phrasing that as a sort of an experiment, let's see if that helps rather than I think this would work. But then at the at the other level, it could be an outright demonstration using direct instruction, potentially, my turn together your turn but you know that thing of supporting the child to lead them through it.
	EP2	I would say for me dynamic assessment would have to have that mediation element to it to be dynamic. So you'd have a starting point, see what the child could do and what the child can then, how mediation would affect the outcomes for that child and the learning for that child. So for me, it's that mediation, that mediated learning experience which is a really important part or fundamental part of dynamic assessment
Mechanisms		
A new and shared understanding is co-constructed		
Existing thoughts and ideas are challenged	EP1	It appeals to my I think my consultation vibe, I suppose is COMOIRA, and it's that enabling dialogue, and I think it really helps me reframe really difficult, stuck situations, air quotes on stuck, and it lets me see them in terms of as barriers to be overcome I suppose instead of just facts of that can never change.
	EP7	They've been quite surprised by the potential of the young person in quite a, they're novel, but they're, if you pick the right task, they can be quite challenging

	EP2	most of the time they're quite sort of "wow, they've done it" and it's that opportunity to observe, I think is quite a positive one in itself.
	EP7	I think it's so much easier when they're there because they can, so often they don't get the chance to have such a an interaction or observe such an interaction or observe a young person achieving something on a novel task or etcetera. And it's so powerful to reflect on what they see.
The opportunity for an exchange of ideas is provided	EP1	the conversation can just be a way of making sure that they understand the things that you've said
		It's having the time ring fenced.
		as a psychologist, you're often trying to slow it down and just really take a breath, really reflect on what it is that's going well, and that conversation, having a conversation in real time, it's easier to do rather than send your report that you can skim. You can't skim a conversation. But you can very easily skim a report so that's what an issue is I think.
	EP1	Yeah, I guess it fosters transparency. those concepts, I think they require unpacking in person and you chuck out the term and then they they'll do a puzzled face and then you explain what you mean and give like examples, and that's a really good way of getting them to understand what it is that you mean kind of in real time.

	EP6	It can often be difficult to feed back the results of dynamic assessment in a way that sounds specific enough. Because you're often gonna be talking in terms of motivational factors or sort of broad cognitive strategies that the child can use. So if a teacher's actually been there and seen it, it crystallizes what you mean
	EP4	I think that block can have a real impact on whether they're able to then take on board that formulation or take on board those strategies I think you're always looking in consultation for collaborative conversation to think about how to move things forward.
		I think when they're willing to engage in this process it then becomes a collaborative process and that equals change.
		I think when people find it hard to engage with those processes, you don't bring about change because they don't engage in that process to kind of have the information that that can bring.
A shared understanding is developed with school staff	EP6	Dynamic assessment, useful though it is, it's still a one off assessment in a particular place in a particular context on a particular task. So questions about how well does this generalize to other tasks umm other places working with other people? Those are still questions that need to be considered in the future.
	EP1	it's Vygotsky's zone of proximal development stuff, it's this idea that learning doesn't take place inside your head, learning is an interactive social experience that takes place in between you and the mediator, whatever is mediating your learning. That's how learning, well, that's how effective learning really works, and I think it's the fact that it feels that the whole dynamic assessment experience is about that mediation that makes it well, that makes the information, the data that you get from it helpful and applicable.

	EP7	they often come up with the ways to move forward, and that's what you're hoping all the time for them to come up with the actions to move forward, because at the end of the day, they have to put that in place and they have to know that they have the resources and skills to do that in their classroom. But it seems more straightforward to think about moving forward, thinking about actions using dynamic assessment.
	EP1	I can talk about the I can talk about me helping the learner from beginning to end and that I think has a kind of resonance with the teacher. Maybe that was something I hinted at in my examples before that "Ohhh, I noticed that she responds really well to positive praise too." "Maybe that's" and it puts you, I think in at a certain level in a certain way on the same level as
		the teacher or learning support assistant or whatever that you're talking to because you've then tried the same things that they're trying day in day out.
	EP4	I think sometimes explaining what the process is, it then feels hard for people to then understand some of it. So I think when you can have people just watching it, it's more of a shared understanding, I think of what's possible, so I think that is helpful.
	EP1	Involving the other teachers and sharing it with them, and if it's not, if they're not involved, then it's usually consultation afterwards where I discuss roughly what I found and check in about "does this map on to your", in the same way I do with the child, "does this map on to your experiences with the young person?" "Are these are things that you find especially effective?"
The child has a positive experience during the DA task	EP2	Usually, dynamic assessment is positive. The child's made progress, so it's a positive experience for the child.
	EP5	you want them to come away with a sense of accomplishment and if they don't come away with that sense, that, you know, can tell you a lot, because the young person might have actually done really well, but they still didn't feel like they did very well because they attributed their success to whatever I did

An environment is created that supports the child to experience autonomy and competence	EP4	Using it for children who are kind of low confidence, I often find I'm mediating feelings of competency, so I think it's, you hope it is a kind of positive experience for them because you are, you're helping them to succeed, they always should be succeeding in it if you're doing the right job doing the mediation, if that makes sense.
	EP6	he had a sense of mastery over what he was doing he knew that he was, it was improving, things had gotten better. He felt that he could do this activity effectively and fluently
		that sense of achievement and mastery, if they have been able to improve their performance in in what they're doing.
	EP6	this young person came up with all the strategies himself, I just provided him with the opportunity to use them
	EP5	And when they see it right in front of them and they see that progress within such short space of time, that really, I guess it's the, you know you can't say it was luck. You can't say.
		"Oh I don't know how I did that" because we've gone through explicitly how they've done it and we can expl- desc- you know they can't put it down to something out of their control. It's, it is within their control. It's the things we've discussed, the things we've done, things that they've done have made a big difference and have made them progress in their learning.
	EP2	I think the dynamic assessment process itself is quite therapeutic, is, can be quite shifting, sometimes, when you've worked with the child and they feel better about themselves, they feel that they can do it, it's quite a relaxed, and you're looking for strengths rather than them ever feeling that they're going to fail at something

	EP7	they're always happy to have a go, often because I think they're novel tasks primarily, they can be motivating	
	EP5	Providing that mediation for them allows them to make progress	
EPs are active participants during the DA task			
EPs actively consider and adapt mediation to the needs of the child	EP4	I think there's a lot to think about with dynamic assessment, it's quite, as an EP, it's quite a working memory task because you're trying to mediate whilst you're going through the task while you're trying to keep a note of where they're at, what change that is happening and there's a lot, there's a lot to think about.	
	EP1	I'm trying to see how they respond to my mediation	
	EP2	in dynamic assessment, complex figure drawing I did on Monday, so that would be before, so have a look at what they're doing before you, and how the mediation affects, how the scaffolding affects their progression.	
	EP6	I'm concerned to, create a situation in which they can engage with the work as effectively as possible.	
	EP4	that would go into the kind of the phase of learning and thinking about the level of mediation that's needed. So, we start going through the through the different tasks and thinking how much support do they need. Can they, with a little bit of input, can they then sort of get on quite well? Do they need the level of mediation?	
EPs make observations and link these to existing theory	EP2	you are thinking about what needs to be put in place for them, the mediated learning and the Feuerstein stuff and that kind of models my thinking as well.	

	What elements of that were really important and was it the relationship?
	Was it the visuals?
	What element of it helped scaffold?
EP4	I think through the mediation you can kind of see what might help to, helping you to kind of see what strategies might be useful.
EP2	So I use a tick sheet, so it's got a list of all the cognitive abilities and cognitive skills so around input, elaboration and output. And I might do that immediately, sort of during, might do it during or immediately afterwards and that helps me think about the mediation techniques. And yeah, that kind of frames my thinking.
EP5	How they approach that learning, let's take complex figure for example, you know have they started in the middle of the page or have they started in the corner?
	Are they taking up the whole page?
	Are they, do they appear to be planning?
	Do they appear to be organized in their thoughts?
	You know, are they engaging in self talk?
	And then if you take 16 word memory test, are they chunking? Are they saying the words as you say them? Do they look like they're engaged in this? Are they finding it difficult to take in the amount of information?
EP3	Those are probably the main things I'm doing, in seeing how what I do impacts the way they respond and so on. And if I then change it a little bit, does that alter the way they appear in the room? And so it's kind of social emotional as well as cognitive performance.

Outcomes		
DA facilitates changes in thinking		
Understanding of factors impacting learning for the child is increased for the child, school	EP2	Even the fact that he wouldn't engage with me as an unfamiliar tells, is kind of the dynamic assessment anyway, because you've got a lot from that lack of engagement, the fact that he moved away from me, turned away from me.
staff and the EP	EP2	It may hopefully give the child a bit of insight to how they learn and um how they approach tasks
	EP2	I think it does give you a lot of information that that they don't already know.
	EP7	Often if you were doing more standardized assessments, you're just telling them, in my opinion, you're just telling them what they already know, if you have a good consultation with them.
	EP2	For me as well, it gives me an insight into to what works and some of their cognitive strengths and areas that may need supporting
	EP4	I think it's helpful in formulation because it's quite a holistic approach, so you're not looking at just cognition, you're looking at cognition and affective factors as well, which is so important in learning.
	EP6	It's been helpful in helping the school to understand how those children learned most effectively
	EP5	I think helping particularly LSAs to see that the learning process, and teachers can fall into it as well, you know there's expectations on them that books must be full otherwise the child isn't learning, but actually bringing it right down to how is this child learning? What's helping them

		make progress? That is what allows them to, I guess see the bigger picture in terms of their learning.
The narrative around the child becomes more hopeful	EP7	I think first of all, it is acknowledging the initial referral that the child's experiencing some difficulties. I always go with acknowledging because, dynamic assessment, I am looking for primarily strength, it also allows, it does allow you to acknowledge the difficulties, the barriers
	EP1	I think this is a really key part of dynamic assessment in a way that creates enabling alternative narratives as opposed to just this child is low and what can you do with that
	EP5	For me, that longer term would be about creating a narrative of this child, and the narrative is with the right support they can make progress and if you develop that narrative rather than they're extremely low, they're below average,, whatever it might be, you're not creating that narrative that they are. So I, I guess it comes down to hope for that longer term outcome.
	EP4	I think it can bridge quite well to the classroom in terms of, I think that hopeful approach, because I think sometimes people can come to you, either it's through EHCP where people feel stuck or through early intervention and people they feel quite stuck. I think because dynamic assessment's quite a holistic, hopeful approach, hopeful kind of assessment.
		I think it helps to unstick some of that stuff.
	EP7	the kind of outcomes of the dynamic assessment is to understand these strengths and their potential, when by the time they've seen you, there are so many worries from school and parents, like I said, they've already carried out their assessments, and found the barriers, and this is an opportunity to finds strengths in moving forward.
	EP1	That's a lovely antidote, that it is to these young people who have been typically like I say, conceptualized in this, to quote my example, has learning difficulties, has a learning disability.
		It gives something because in dynamic assessment I always try to generate more strengths because there usually are more significant strengths than areas of difficulty, when I'm writing

		it up and it's just it enables that kind of focus on what's good and what strength can we build on rather than what barriers do you have to overcome as well.
	EP4	I think a case a couple years ago where a young person was looking at, again, I suppose that confidence and we talked about kind of in the classroom helping around, self regulation and things and supporting that way, and that I think that kind of changed their [school staff's] formulation of it and help them to respond in a different way which supported the child's learning.
		I think if you can help people see a child in a different way they respond in a different way and it's hard to pinpoint what that moment is. But I think yeah, you know, you do the best you can do until you know differently, don't you? So I think sometimes dynamic assessment is helpful in helping them see to things in a different light.
	EP6	it kind of looked to the school like he had difficulty with short term memory, but it was more to do with his ability to focus his attention.
CYP self-perception becomes more positive	EP5	You do notice that they become more confident
	EP5	I think the it's an intervention in itself coming away, having been in school and done something and got better at something and have that sense of achievement is an intervention in itself
	EP2	I think the dynamic assessment process itself is quite therapeutic, is, can be quite shifting, sometimes, when you've worked with the child and they feel better about themselves, they feel that they can do it
	EP5	I think the beauty of dynamic assessment is that the goal also is to leave them feeling positive

	EP7	actually he responded really enthusiastically, and to go from a session with me, like with a leap, a real leap in his step He actually moved his face on the zones of regulation onto the green, onto the positive green, and then went straight on into an activity.
DA facilitates changes in behaviour		
School staff do something different to support the child	EP1	And then it was just, which was a much more enabling stance to be in rather than the child has learning diff-, what do you do about learning difficulties?
		Child has self-regulation difficulties, you can go into this coregulation story, and think about how do you support them to remain regulated while they're learning?
	EP7	I'm not sure what I'm basing it on, but I think using dynamic assessment, it's almost, been easier to work with the class teacher or the LSA in thinking about ways to move forward
		it seems more straightforward to think about moving forward, thinking about actions using dynamic assessment.
		Because you're saying "this is what he/she responded to this is what she/he, found more difficult, but if we did this, could you replicate that?"
		You know, there are already, they're there for you, almost in thinking about how they could be supported in class.
	EP5	Dynamic assessment shows, gives them real easy fixable things that they can do to make progress. So I think that's a real benefit of it.

EP1	What dynamic assessment does is it gets you that whole picture. It's like right, this is what the difficulty is, this is how it can be helped, those things together.
EP4	Once they understand that child in a different way, they can kind of respond to them in a different way in the classroom.
EP1	I've worked with several people in dynamic assessment this year and I've worked with their teachers or learning support assistants, and I feel comfortable that the teacher has changed a bit of their approach. You know even small steps are suffi-, I'm happy enough, or learning support assistant has changed their approach a touch, a bit, that's enough.
EP6	If you've done your mediation and you've come up with the strategies that are support- that are helpful for the child, you've basically already written at least some of the outcomes that that child can be working towards, and the provision as well.
EP1	You'd have that kind of conversation of like what was different and what kinds of things work best. And the idea is to kind of elicit from the teacher times when they've done similar things in the pa-, like I guess it's trying, you know "oh you did a lot of positive praise and high fives and those ritualized success things I've noticed, I get, I tend to get a bit more out of her when I do that." "Maybe I should do that more." It's that kind of conversation, yeah.
EP1	For the teacher, I'm trying to develop their understanding. I guess it's that if you think about the giving psychology away idea, that's Miller I think that quote about the idea of the giving psychology away thing and trying to help them, give them another lens through which to view not just that learner that you're specifically working on in an individual piece of casework.

		But I mean, I, I love it when I'm working with a specific young person and I explain the psychological concept and there's "Ohh that might be also what's going on with Johnny, that sounds like them too." "Ohh actually that would be so good for somebody else" you know, so it's that generalizable practice. So I guess it's also the promoting really big ideas in psychology, I think that's a part of what you're doing, and trying to share that good practice that would hopefully develop the teacher's overall practice as an instructor, as a mediator, I suppose.
Longer term outcomes are difficult to evaluate in the current professional context	EP1	I think one of the really, really difficult things about being an EP is that there's such a poor feedback mechanism just built into the job. People will say at the end of a consultation. "Yeah, that was great" "that was great". You don't know that they thought it was great, you don't know, or even if they did, think it was great, you don't know in 10 weeks time will you have made a difference? It's really difficult to get that information
	EP6	I mean in the same way that we do for everything, I mean, too much of our work now is go in, do a statutory assessment, and go away again that's always a challenging question for the entire profession to be honest, we don't go back and follow up as much as we'd like
	EP4	I think sometimes it's hard to see, sometimes the outcomes, because I think it's, yeah, I don't always have that over time.