



**Effective mentor training, education and development: a qualitative multi-level meta-synthesis**

Journal:	<i>International Journal of Mentoring and Coaching in Education</i>
Manuscript ID	IJMCE-07-2023-0068.R1
Manuscript Type:	Research Paper
Keywords:	Mentor training, Coach training, Mentor development, Coach development, Mentor education, Coach education, Mentee training, Coachee training

SCHOLARONE™  
Manuscripts

# Effective mentor training, education and development: a qualitative multi-level meta-synthesis

## Abstract

### *Purpose*

This paper synthesises international research on effective mentor training, education and development (MTED).

### *Design/methodology/approach*

An adaptive theory methodology (Layder, 1998), combining deductive and inductive methods, was deployed in a qualitative meta-synthesis of thematic findings generated in three studies: a systematic review of literature published between January 2010 and July 2020, together with a secondary analysis of studies including evidence on MTED; a subsequent systematic review of literature published between August 2020 and May 2023; and a general inductive analysis (Thomas, 2006) of interviews of leaders of large-scale MTED programmes which had good evidence of impact.

### *Findings*

Our meta-synthesis found that effective MTED is evidence-based, refined through ongoing research, tailored both to individual needs and context, and includes sustained support. Effective pedagogical approaches in MTED are underpinned by adult learning principles and establish a learning climate that fosters open and trusting relationships. Effective MTED is shaped by the espoused mentoring model or approach, with particular emphasis on understanding, building and sustaining mentoring relationships, and incorporating observing, practising, critically reflecting on and receiving feedback on mentoring.

### *Originality*

The original and significant contribution of this study is the identification of key principles relating to the overall design of – as well as specific content, pedagogical approaches and supporting resources within – MTED programmes that have evidenced positive effects on mentors, mentees, mentoring and/or organisations.

### *Implications*

The study will be helpful to practitioners designing, reviewing and evaluating MTED programmes, researchers seeking to enhance the sparse MTED evidence base, and programme commissioners.

## Keywords

Mentor training; Coach training; Mentor development; Coach development; Mentor education; Coach education; Mentoring programme; Coaching programme; Mentee training; Coachee training.

## Introduction

This aim of this paper is to synthesise international research on effective mentor training, education and development (MTED) to inform the future development of MTED for adults in educational contexts (e.g., schools, colleges, universities and youth work settings) and the associated research agenda. Since a wide variety of approaches to mentoring is practised globally, we considered it important to adopt a definition of mentoring which was sufficiently broad to encompass all of these. We therefore define mentoring as a 'facilitative or helping relationship intended to achieve some type of change, learning, and/or enhanced individual and/or organisational effectiveness' (Maxwell *et al.*, 2022, p. 5).

In our view, this broad definition of mentoring also provides a broad definition of coaching: indeed, it was adapted from Smith *et al.*'s (2009) definition of coaching. Moreover, it has been argued that some approaches to mentoring have more in common with some approaches to coaching than they do with other approaches to mentoring, and vice versa (Hobson = van Nieuwerburgh, 2023) and that 'mentoring studies which only draw on previous research into mentoring, and coaching studies which only utilise previous research into coaching, may lack rigour insofar as they are only partially situated in their relevant research contexts' (Hobson = van Nieuwerburgh, 2023, p. 5).

Therefore, our MTED analyses incorporate sources related to the training, education and development of both coaches and mentors. We have, however, restricted our analyses to MTED which relates to one-to-one relationships, the most common form of mentoring and coaching. This is to provide a sufficient degree of focus and exclude what might be quite different approaches to training, education and development in the context of group mentoring or coaching programmes.

To enhance readability in this paper, we use the terms mentoring, mentor, mentee and MTED to be inclusive of coaching, coach, coachee, and coach training, education and development. Hence, in what follows, we generally only use the term coaching where we discuss our research design (e.g., literature search terms) or refer to specific coaching programmes, projects or literature.

The international research literature has shown that mentoring in education can enhance learning and development and impact positively on mentees' effectiveness, wellbeing and retention (Ingersoll and Strong, 2011; Kutsyruba and Godden, 2019; Kraft *et al.*, 2018). However, mentoring does not always bring these desired outcomes (Colley, 2002; Hobson and Malderez, 2013). The

1  
2 extent to which such outcomes are realised depends on whether conditions for effective mentoring  
3 are in place (Hobson, 2017; Nugent *et al.*, 2023).  
4

5  
6 Conditions for effective mentoring have been found to include, amongst others, effective mentor  
7 selection and mentee–mentor matching (Wang, 2001; Yusko and Feiman-Nemser, 2008), the  
8 provision of dedicated time for mentors to undertake the mentoring role (Bullough, 2005; Lee and  
9 Feng, 2007) and various means of supporting the establishment of relational trust between mentees  
10 and mentors (Denton and Hasbrouck, 2009; Ng, 2012). One of the most frequently reported  
11 conditions for effective mentoring is whether mentors are trained – or effectively trained – for the  
12 role (Bullough, 2005; Crasborn *et al.*, 2008; Lejonberg *et al.*, 2015). However, studies suggest that  
13 the quality and take-up of mentor training is highly variable, and often, mentors do not receive  
14 adequate preparation for the role (Hobson and Malderez, 2013; Thompson, 2016). Furthermore,  
15 there is a dearth of studies identifying what effective MTED involves, and the evidence base on the  
16 effects of MTED is sparse and underdeveloped (Aspfors and Fransson, 2015; Robinson and Hobson,  
17 2017).  
18

19  
20 To extend this evidence base, we present a qualitative meta-synthesis of findings on the nature, key  
21 features and impacts of MTED and the contextual factors that modify potential impacts. We address  
22 the following research questions:  
23

24  
25 RQ1: What does existing research tell us about the nature, key features and impact of  
26 effective MTED?  
27

28  
29 RQ2: What does existing research tell us about the contextual factors that enhance or  
30 impede the potential effects of MTED?  
31

32  
33 We use the term MTED to encompass both initial and ongoing programmes of training, education  
34 and/or support, where the primary aim is to prepare and/or support the development of mentors.  
35 By 'effective', we mean where the primary study provides evidence from rigorous research of the  
36 positive impact of the MTED on mentors, the mentoring relationship, mentees and/or their  
37 organisations.  
38

### 39 40 41 **Methodology**

42  
43 An adaptive theory methodology (Layder, 1998), combining deductive and inductive approaches, was  
44 deployed to undertake a qualitative multi-level meta-synthesis of findings from three studies  
45 conducted sequentially: (1) an initial systematic review of international literature published between  
46 1 January 2010 and 31 July 2020, together with a secondary analysis of studies which included  
47 research evidence on MTED; (2) a general inductive analysis (Thomas, 2006) of interviews of leaders  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

1  
2 of large-scale effective MTED programmes with sufficient good-quality evidence of impact  
3 conducted in September 2020; and (3) a follow-on systematic review of literature published  
4 between 1 August 2020 and 12 May 2023.  
5  
6  
7

8 Adaptive theory is based on the premise that existing ‘theory both adapts to ... incoming evidence  
9 while the data itself is simultaneously filtered through, and is thus adapted by, the prior theoretical  
10 materials’ (Layder, 1998, p. 5). Using this iterative approach within, and across, the individual studies  
11 was particularly apposite for constructing theory over time from three separate sequential analyses.  
12 This ensured that all data sources and analyses contributed to the findings presented in this paper.  
13 The initial review enabled the construction of tentative qualitative hypotheses about effective  
14 MTED. The approach to designing and analysing the interviews with leaders of effective MTED  
15 programmes was informed by these hypotheses. In the light of the interview findings, there was  
16 some re-organisation and re-shaping of the original hypotheses, and an analytical framework was  
17 developed for the meta-synthesis of findings from all three studies.  
18  
19  
20  
21  
22  
23  
24

25 Ethical approval was granted by the University of Brighton and the research undertaken in  
26 accordance with the British Educational Research Association’s Ethical Guidelines (BERA, 2018).  
27 Below, we outline, and provide a rationale for, our data generation and analysis methods.  
28 Limitations of the research are discussed in the penultimate section of the paper.  
29  
30  
31  
32

### 33 ***Initial systematic literature review and secondary analysis of data***

34  
35 The review of literature followed systematic review principles and processes to ensure consistency,  
36 transparency and rigour. The approach is summarised below and discussed more fully in Hobson *et*  
37 *al.* (2020). Screening, filtering and reviewing processes adhered to a PRISMA-P protocol (Moher *et*  
38 *al.*, 2009). In line with good practice in conducting systematic reviews (Tomlinson and Parker, 2021),  
39 six international mentoring and coaching researchers, identified by the authors, and 12 significant  
40 providers of MTED programmes in England, identified by the Department of Education or the  
41 Education and Training Foundation,<sup>i</sup> were consulted on potential literature sources. Application of  
42 the search syntax retrieved 278 unique sources which were progressively reduced to 20 (16  
43 academic; four grey literature) by applying inclusion/exclusion criteria in a three-stage process. The  
44 20 sources thus met the criteria of relevance to research aims, recency (published since 2010),  
45 written in English, sufficiency of detail on the MTED provision, and rigorous evidence of MTED  
46 impact were. The criteria for assessing rigour published in the UK Research Excellence Framework  
47 (REF, 2019, pp. 35–38) was applied by the authors, who had significant experience of using the  
48 framework. This framework was selected as it can be applied across different methodological  
49 approaches and disciplines.  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

1  
2  
3 In line with the adaptive theory methodology, a critical summary template was developed for the  
4 review of literature and secondary sources and populated with detail relating, for example, to key  
5 features of mentoring or coaching training programmes, findings on effective and less effective  
6 features of MTED programmes, and factors which enhance or impede MTED (Hobson *et al.*, 2020).  
7  
8 This enabled the production of inclusive data summaries that could be compared. Following  
9  
10 standardisation checks between reviewers, critical summaries were produced for the 13 MTED  
11  
12 programmes covered by the sources and each of the two meta-syntheses (Aspfors and Franson,  
13  
14 2015; Sheri *et al.*, 2019). Included literature spanned MTED for mentors of beginner and experienced  
15  
16 teachers, higher education researchers, medical and dental educators, and young people. Sources  
17  
18 are identified by a single asterisk in the reference list and further details provided in  
19  
20 Supplementary\_materials\_appendix\_1.  
21

22  
23 Eight studies of mentoring, undertaken by the authors of this study, which were completed between  
24  
25 2014 and 2020 and included research evidence relating to MTED, were selected for secondary  
26  
27 analysis (SA) (Heaton, 2004; Seale, 2011). Although accessibility and ethical permission  
28  
29 considerations led to only authors' studies being included, they were selected as the research team  
30  
31 were aware that they included relevant findings. Four studies focused on mentoring in the further  
32  
33 education and training sector – SA1 (Hobson *et al.*, 2015; Hobson and Maxwell, 2020), SA2  
34  
35 (Manning, 2015; Manning and Hobson, 2017), SA3 (Robinson and Hobson, 2017) and SA8 (Hobson  
36  
37 and Clements, 2020); two on teacher mentoring in primary and secondary education – SA5 (Hobson  
38  
39 *et al.*, 2019a) and SA6 (Hobson *et al.*, 2019b); one on head teacher peer mentoring – SA7 (Hobson *et*  
40  
41 *al.*, 2019c); and one on mentoring across professions – SA4 (Hobson *et al.*, 2016). Further details of  
42  
43 the studies are summarised in Supplementary\_materials\_appendix\_2 and related literature is  
44  
45 identified by a triple asterisk in the reference list.  
46  
47

48  
49 Identification of key themes and emerging findings on the nature, key features and impacts of  
50  
51 effective MTED programmes and the factors that enhanced and/or impeded those impacts from the  
52  
53 literature and secondary analysis critical summaries was initially undertaken independently by the  
54  
55 authors. Themes and findings were subsequently agreed through team discussion and an annotated  
56  
57 list produced based on discussion and individual written analysis notes. This was reviewed by all  
58  
59 authors and original sources were accessed, as necessary, to confirm accuracy.  
60

#### **Follow-on systematic literature review**

61  
62 For consistency, the searching, filtering, reviewing protocol, critical summary template and  
63  
64 verification checks used in the initial review were also applied in the follow-on review, which  
65  
66 synthesised literature published since the initial review. The initial search retrieved 107 unique  
67  
68  
69  
70

1  
2 sources, which through the application of inclusion/exclusion criteria were reduced to seven  
3 academic sources. Included literature spanned MTED for mentors of beginner teachers; applicants  
4 to, and students in, higher education; and young people. The sources are indicated by a double  
5 asterisk in the reference list and further information provided in  
6  
7 Supplementary\_information\_appendix\_3.  
8  
9

10  
11 A co-constructed analytical summary of additional evidence on the nature, key features and impacts  
12 of effective MTED programmes and the factors that enhanced and/or impeded those impacts was  
13 produced from the critical summaries. Original sources were accessed to support accuracy when  
14 necessary.  
15  
16  
17

### 18 ***Effective MTED leader interviews***

19  
20 Five leaders of effective MTED programmes were selected from the 13 that met the criteria for  
21 inclusion in the initial systematic review. The criteria for selection were that the programmes were  
22 well established (at least four years), large scale (more than five hundred completions) and for which  
23 the associated literature included in the initial review evidenced strong impacts through rigorous  
24 research. All five leaders agreed to participate in semi-structured interviews. Three led programmes  
25 developed in the United States – Entering Mentoring (EM) (House *et al.*, 2018; Pfund *et al.*, 2013;  
26 Pfund, Branchaw *et al.*, 2015; Pfund, Spencer *et al.*, 2015; Spencer *et al.*, 2018), CO-Mentor (CO-M)  
27 (Nearing *et al.*, 2020) and Preparing for Mentoring (PFM) (Garringer *et al.*, 2015; Kupersmidt *et al.*,  
28 2017). Mentoring Beginner Teachers (MBT) (Beutel *et al.*, 2017; Willis *et al.*, 2019) was an Australian  
29 programme, and ONSIDE mentoring (SA5-8) was developed in England. EM and CO-M provide MTED  
30 in higher education, MBT and ONSIDE train mentors for beginner teachers and, additionally, ONSIDE  
31 trains experienced teachers and leaders, and PFM focuses on young people. CO-M trains mentees  
32 alongside mentors, as do some iterations of ONSIDE. Further information is provided in  
33  
34 Supplementary\_information\_appendix\_4.  
35  
36  
37

38 A general inductive analysis (Thomas, 2006) of the interview transcripts was undertaken to draw out  
39 detailed insights into effective MTED design and contextual factors that enhanced or impeded  
40 effects. Following an iterative process of close reading and development of inductive codes, codes  
41 were organised into a draft framework for synthesising emergent findings. The framework,  
42 populated with evidence from the interviews, was reviewed and verified by different members of  
43 the research team.  
44  
45

### 46 ***Meta-synthesis***

47  
48 As noted earlier, in line with adaptive theory, the analytical framework for the final meta-synthesis  
49 was developed progressively and iteratively as theory on effective MTED was built from each of the  
50  
51  
52  
53  
54  
55

1  
2 three studies. All authors reviewed and contributed to the final iteration of the meta-synthesis  
3 findings. The analytical framework populated with the findings from the three studies was reviewed  
4 for common and potentially contradictory themes. Factual and interpretative checks were  
5 undertaken using the interview transcripts, critical summaries and original sources to enhance the  
6 dependability of the final synthesis (Guba and Lincoln, 1994).  
7  
8  
9  
10

11 In the following sections, we present the most prominent themes to emerge from the meta-  
12 synthesis, which relate to overarching design principles, pedagogy, content, supporting resources  
13 and contextual factors found to enhance or impede MTED effects. Space constraint means that it is  
14 not possible to present all the sources that contributed to a meta-finding. Instead, we provide a  
15 maximum of three exemplar citations, drawn from the literature, secondary analysis and/or  
16 interviews to support individual findings.  
17  
18  
19  
20

21 To enhance trustworthiness (Guba and Lincoln, 1994), we make transparent the effects that are  
22 likely to be achieved if the features of 'effective MTED' found in the meta-synthesis are adopted by,  
23 first, briefly summarising the findings on MTED effects in the initial and follow-on reviews. Interview  
24 data are generally omitted from this section as impact data were presented in the associated papers  
25 which were part of the initial review.  
26  
27  
28  
29  
30

### 31 **MTED effects**

32 The most frequently reported positive effects, attributed to MTED, related to mentors, mentoring  
33 relationships and mentoring practices. Evidence indicated mentors' enhanced understanding of  
34 mentoring roles and practices (Beutel *et al.*, 2017; Kupersmidt *et al.*, 2017; van Ede *et al.*, 2023),  
35 including inclusive mentoring practice (Brace *et al.*, 2018; House *et al.*, 2018; Sheri *et al.*, 2019) and  
36 the needs of their mentees (SA3; Aspfors and Fransson, 2015; Health Education England [HEE],  
37 2017). Increased confidence and self-efficacy as a mentor were also reported (Kupersmidt *et al.*,  
38 2017; Vincent, 2018; Whiting and Wickham, 2020), as were a range of skill enhancements. These  
39 included critical reflection (Aspfors and Fransson, 2015; Beutel *et al.*, 2017; Ingleby, 2014),  
40 interpersonal and communication skills (Aspfors and Fransson, 2015; Nearing *et al.*, 2020; van Ede *et al.*,  
41 2023) and specific mentoring skills, particularly goal setting, building mentees' confidence and  
42 providing effective feedback (Beutel *et al.*, 2017; Cabezas *et al.*, 2023; Matthews, 2016). Wider  
43 impacts included improved professional practice (HEE, 2017; Nearing *et al.*, 2020; Sheri *et al.*, 2019)  
44 and enhanced status, leadership skills and influence (Beutel *et al.*, 2017; Haqquee *et al.*, 2020; Willis  
45 *et al.*, 2019).  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56

57 Positive impacts on mentoring relationships and practice (SA4; Sheri *et al.*, 2019; Willis *et al.*, 2019)  
58 included aligning practices more closely with the model or approach to mentoring advocated in the  
59  
60



1  
2 MTED (SA2, SA4, SA5–SA8; Matthews, 2016; Melton *et al.*, 2019; van Ede *et al.*, 2023), tailoring  
3 mentoring more closely to mentee needs, with more active listening and open conversations (House  
4 *et al.*, 2018; Pfund *et al.*, 2013; van Ede *et al.*, 2023) and shifting the focus of conversations (Melton  
5 *et al.*, 2019; Miller *et al.*, 2019).

6  
7  
8  
9  
10 Fewer studies provided evidence of impacts for mentees, and with the exception of MTED  
11 programmes that included mentee training (SA5 and SA6; Nearing *et al.*, 2000), it was often unclear  
12 whether such outcomes could be attributed, in full or part, to MTED, the enactment of mentoring or  
13 other developmental activities. Practice-related changes included enhanced knowledge and  
14 understanding (HEE, 2017; Miller *et al.*, 2019) and improved skills, enhanced competence and  
15 effectiveness (Aspfors and Fransson, 2015; Nearing *et al.*, 2020; Sheri *et al.*, 2019). Enhanced  
16 retention and career progression (Matthews, 2016; Nearing *et al.*, 2020; Sheri *et al.*, 2019) and  
17 improved resilience, wellbeing and work–life balance (SA3; HEE, 2017; Willis *et al.*, 2019) were also  
18 identified.

19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60  
Evidence of impact on organisations was limited. While there was convincing evidence of the  
positive impact of CO-M MTED on organisational culture (CO-M leader), generally, when  
enhancements to professional learning cultures or improved staff retention were reported (SA4 and  
SA5; HEE, 2017; Matthews, 2016), it was unclear to what extent this was attributable to MTED.

### **Nature and key features of effective MTED**

#### ***Design principles***

We consider design principles to be the core beliefs that guide MTED providers' decisions about  
their programme's pedagogy, content and resources. This section draws particularly on the  
interviews of leaders of effective MTED programmes, who provided in-depth insights into the design  
principles they perceived to be critical in generating positive effects. These principles were also  
evident across some sources in the initial and follow-on reviews, although they were not necessarily  
labelled as such, and explanations were more limited.

The first principle, advocated strongly by all the interviewees and implicit within most literature and  
SA sources, was that MTED should be informed by empirical and/or theoretical evidence. Such  
evidence was sometimes presented as a named model of mentoring with a set of design principles,  
such as the ONSIDE Framework (Hobson, 2017) deployed in SA5–SA8, and Garringer *et al.*'s (2015)  
*Elements of Effective Practice for Mentoring* underpinning PFM. In other instances, a combination of  
evidence-based approaches to mentoring, such as Cabezas *et al.*'s (2023) use of Wang and Odell's  
(2002) theory-and-practice connection model and Bambrick-Santoyo's (2012) feedback model were  
deployed. Mentoring life-cycle theories (ONISIDE and PFM) and research relevant to the specific aims

1  
2 of the mentoring programme – for example, persistence in science career paths (EM and CO-M) –  
3 were also drawn on. In addition, MTED design was informed by broader psychological theory – for  
4 example, self-determination theory (Ryan and Deci, 2020) (CO-M leader; van Ede *et al.*, 2023) – and  
5 leadership and business theory (CO-M), while learning sciences (CO-M and PFM) were influential in  
6 underpinning pedagogical approaches, as were the principles of adult learning. It is notable that  
7 irrespective of whether the evidence base was aligned with a named mentoring model, or not, the  
8 underpinning principles for mentoring advocated usually aligned with developmental and non-  
9 judgemental approaches (Maxwell *et al.*, 2022).

10  
11 The second principle, that programmes should be the subject of rigorous research into their  
12 effectiveness, which is subsequently drawn upon to enhance them, was also strongly advocated by  
13 all the leaders of effective MTED programmes. Although, this principle was not highlighted in some  
14 literature sources, it is important to note that all the sources included in this study were selected  
15 because they reported robust research on MTED effectiveness.

16  
17 The third principle, for which there was strong evidence from all three analyses, was that MTED  
18 should be tailored whilst maintaining its underpinning principles (Aspfors and Fransson, 2015). As  
19 the PFM expert noted, ‘One thing we’ve learned is that our general principles never change, but we  
20 keep swapping our examples.’ Effective MTED was tailored to participants and the work being  
21 undertaken by mentees. For example, MTED for mentors of beginner science teachers focused on  
22 mentors’ ‘understanding of the components of effective science instruction ... [and] ability to use a  
23 palette of support strategies to guide novices in ... instructional decision’ (Melton *et al.*, 2019 p. 25).  
24 Contextualisation to discipline and career stage was also evident, as was adaptation to  
25 organisational contexts (EM; CO-M). This was also illustrated by Whiting and Wickham’s (2020)  
26 observation that MTED should focus on the ‘reality’ of the context to avoid feeling ‘thrown in at the  
27 deep end’ (p. 108) and by the ONSIDE leader’s engagement with organisational leaders and sponsors  
28 prior to the programme. Tailoring to the wider policy context was illustrated in MBT, where new  
29 professional standards were embedded by co-designing and facilitating the programme with policy  
30 officers (Beutel *et al.*, 2017).

31  
32 The meta-synthesis did not find consensus on ‘the ideal’ duration, intensity and modality of effective  
33 MTED programmes. Turning first to duration and intensity, while some effective MTED programmes  
34 had a duration of two to three terms, others that evidenced positive effects provided relatively few  
35 hours of training prior to, or at the beginning of, mentoring relationships (Kupersmidt, 2017; Pfund  
36 *et al.*, 2013; Spencer *et al.*, 2020). There was consensus, though, that maximising the potential  
37 effects of upfront training required access to sustained support for mentors and mentees over the  
38 duration of the mentoring relationship (Miller *et al.*, 2019; Pfund, Spencer *et al.*, 2015). We suggest  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

1  
2  
3 that the provision of some form of sustained support is a more useful design principle than trying to  
4 identify ideal duration and intensity. In some instances, sustained support was provided by an  
5 extended MTED programme that offered opportunities for critical reflection and guidance on the  
6 mentoring relationship and activities, addressed any issues that arose and prepared participants for  
7 ending the mentoring relationship (SA5–SA8; Brace *et al.*, 2018; Matheson *et al.*, 2020).

8  
9  
10 Alternatively, there were instances where sustained support was provided as well as, or instead of,  
11 an ongoing MTED programme, by MTED facilitators and/or mentor coordinators (House *et al.*, 2018;  
12 Pfund, Branchaw *et al.*, 2015). The importance of sustained support was highlighted by the MBT  
13 leader: '[It's] absolutely imperative that it's spread over a longer period of time ... so people go away  
14 and practice and then bring back further discussion.'

15  
16  
17 While the PFM leader pointed to the need for ongoing feedback to mentors, 'feedback ... both  
18 corrective, supportive and complimentary plays a pivotal and critical role in the maintenance of [the  
19 mentoring] relationship'.

20  
21  
22 Turning to modality, there were differing views on the appropriateness of face-to-face and e-  
23 learning approaches. Face-to-face provision was considered necessary, by some, for practising  
24 mentoring and receiving feedback from peers (MTB and ONSIDE), enabling sense-making, making  
25 connections to the mentees' practices and developing a sense of community (Melton *et al.*, 2019).  
26 Benefits of online provision identified included 'convenience, autonomy, and engagement'  
27 (Kupersmidt *et al.*, 2017 p. 210), 'delivering high-quality, engaging, standardized, easily accessible,  
28 and scalable education' (Garringer *et al.*, 2015, p. 48) and the accessibility of animated 'dynamic'  
29 downloadable tools and model conversations (Melton *et al.*, 2019, p. 30). Findings from effective  
30 MTED that moved from face-to-face or blended modes to solely online due to the COVID-19  
31 pandemic reported that e-learning modality enabled mentor participation and learning but that  
32 face-to-face components could trigger more developmental interactions (Cabezas *et al.*, 2023).  
33 There was some support for blended learning approaches which enabled different modes to be  
34 deployed, depending on the knowledge, attitudes, skills or behaviours being developed, scale of the  
35 programme and funding available (PFM; Melton *et al.*, 2019). In conclusion, we suggest that rather  
36 than trying to identify 'the most effective' modality, the underpinning principle should be that  
37 decisions on modality should reflect the programme's aims, scale and context.

38  
39  
40 A further potential principle that emerged was including mentees in MTED. There was limited  
41 evidence to support this principle, but that should not necessarily be interpreted as a lack of  
42 effectiveness. Only two MTED programmes (ONLINE and CO-M) incorporated this principle, and both  
43 provided robust evidence of impact. In both instances, the majority of the MTED was facilitated in  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

groups comprising both mentors and mentees, although apart from brief reflection activities, mentor/mentee pairings did not work together (SA5 and SA6; ONSIDE; Nearing *et al.*, 2020). The inclusion of mentees was reported to enable them to become 'good professional learners', take joint responsibility for ensuring a positive mentoring relationship (ONISIDE) and work out what they needed and were prepared to do to achieve their goals (CO-M). An increased sense of accountability by mentors and commitment to engaging with MTED was also observed in joint training (CO-M).

### ***Pedagogical approach and resources***

The pedagogical approach evident in effective MTED was generally participatory and underpinned by adult learning principles (Knowles, 1978), as illustrated by the CO-M leader: 'We use adult learning principles. It's very experiential ... it's very participatory. We really emphasise that everybody has so much wisdom in the room.'

The interactive methods deployed included workshops, role play, action-learning sets, seminars, keeping a reflective journal (Ingleby, 2014; Kupersmidt *et al.*, 2017; Sheri *et al.*, 2019) and shadowing of, and roleplay with, experienced mentors (Whittington and Wickham, 2020). MTED facilitators flexibly selected and tailored methods to match participants' needs, and care was taken to ensure that training was an enjoyable positive experience (Whittington and Wickham, 2020).

Opportunities to observe, practise and receive peer feedback on mentors' enactment of the mentoring approach or model advocated by the programme was emphasised as enabling participants to apply, extend and deepen their understanding and skills (SA5, SA6 and SA7; Beutel *et al.*, 2017; Pfund *et al.*, 2013). This was usually facilitated through role play, use of videos and engagement with case study scenarios. Role plays sometimes included participants acting as observers and reverse mentoring where mentors and mentees swapped roles (ONISIDE).

Regular opportunities for critical reflection on the mentoring model or approach, participants' mentoring practice, challenges they had experienced or were likely to encounter, and their potential solutions were also emphasised (Aspfors & Fransson, 2015; House *et al.*, 2018; van Ede *et al.*, 2023):

What was critical was that we engaged the practitioners in discussions about the core issues and gave them time to talk with their peers about the challenges and solutions so that they could expand their own toolbox so ... it was deeper. (EM)

Establishing a safe learning climate by building in opportunities for participants to interact and develop open and trusting relationships was perceived as crucial in enabling mentors to share, and mutually reflect on, their mentoring practice and learning and development (SA5–SA7; Brace *et al.*, 2018; Sheri *et al.*, 2019; MTB). As Aspfors and Fransson's review (2015, pp. 82–84) found, 'Trusting,

1  
2 comfortable, supportive and stimulating relations among participants ... are ... crucial for  
3 professional learning ... it is therefore essential to organise enough space for the mentors to meet,  
4 interact, share their new experiences as mentors and build a culture of openness and trust.’  
5  
6  
7

8 A further intention of pedagogical strategies that fostered relationship building was for participants  
9 to understand each other’s work better and open up opportunities for future collaborative work  
10 (MBT, EM and CO-M).  
11  
12

13 There was some evidence, mainly for mentors of teachers, of the effectiveness of using videos of  
14 professional practice to support critical reflection and ensure consistency with the model of practice  
15 advocated for mentees (Aspfors and Fransson, 2015; Cabezas *et al.*, 2023).  
16  
17  
18

19 Two of the MTED leaders (EM and PFM) emphasised the importance of pedagogical tools and  
20 resources that were ‘sticky’:  
21  
22

23 We were reading the literature on pedagogy to think about strategies and methods for  
24 instruction [to] create content that was ‘sticky’ in the sense that it would carry with the  
25 person so that ... they might have some general principles that they could keep with them. ...  
26 while they were doing mentoring ... So, we used a lot of pedagogical tools ... we created  
27 acronyms ... mnemonics, [and] a visualisation of different concepts. (PFM)  
28  
29  
30  
31  
32

33 While the term ‘sticky’ was not used widely, some descriptions of pedagogical models, tools and  
34 resources in other MTED indicate that they were likely to support ‘stickiness’ – for example, the  
35 ORID framework (objective, reflective, interpretative and decisional questioning) to help mentors  
36 structure conversations (MBT), Bambrick-Santoyo’s (2012) steps to giving effective feedback  
37 (Matthews, 2016) and mentor–mentee agreements or compacts, which embed the espoused  
38 mentoring practices (ONside, EM and PFM).  
39  
40  
41  
42

43 The provision of an extensive set of supporting resources, tailored to the participants and context of  
44 mentoring, which were often available online, was a key feature of effective MTED and valued by  
45 participants (Brace *et al.*, 2018; Cabezas *et al.*, 2023; Spencer *et al.*, 2018).  
46  
47  
48

## 49 **Content**

50  
51 The mentoring relationship, and the approaches and activities associated with the relationship in  
52 general and at specific stages in the life cycle of mentoring, provided the core content in nearly all  
53 effective MTED. Within this, there was a central focus on enacting the espoused mentoring approach  
54 or model (SA5–SA8; Garringer *et al.*, 2015; Haqqee *et al.*, 2020; Matthews, 2016). For example, the  
55 MBT leader emphasised support for mentors to implement a developmental approach by looking at  
56  
57  
58  
59  
60

1  
2 styles of mentoring: 'We really highlight ... that this is very much about getting the beginning teacher  
3 to problem solve rather than providing advice all the time.'

4  
5  
6 There are strong interrelationships between programme content and the pedagogical approach and  
7 resources outlined above. To avoid duplication, we summarise the main themes relating to content  
8 of effective MTED in Table 1. As would be expected, the specific content of individual MTED  
9 programmes was tailored to the programme aims and context as well as the espoused mentoring  
10 approach or model.  
11  
12  
13  
14

15  
16 **Table 1 about here**

17  
18 **Factors that enhance or impede potential effects of MTED**

19  
20 The meta-synthesis indicated that a range of contextual factors, external to the MTED programme,  
21 enhanced and/or impeded potential effects. Most factors related to the participants' organisational  
22 context. Firstly, senior leaders' understanding of, and commitment to, mentoring and support for  
23 mentors to engage in MTED and enact the espoused mentoring model or approach was critical.  
24 Where there was understanding and support, time and space were generally provided for engaging  
25 in MTED, enacting mentoring, and in turn, positive effects were realised (SA4 and SA5; Cabezas *et*  
26 *al.*, 2023; House *et al.*, 2018). Conversely, where there was a lack of commitment by senior leaders  
27 and no, or very limited time, for mentors, effects were impeded (SA3; Sheri *et al.*, 2019; Willis *et al.*,  
28 2019).  
29  
30  
31  
32  
33  
34

35  
36 Secondly, the meta-synthesis indicated that organisational cultures, which are also dependent on  
37 senior leader attitudes towards professional learning, need to be conducive to effective mentoring  
38 for potential effects of MTED to be realised (MBT; ONSIDE; EM; CO-M; Willis *et al.*, 2019).

39  
40 Interestingly, there was some, albeit limited, evidence of a positive and reinforcing relationship  
41 between effective MTED and organisational cultures that support MTED and mentoring: 'Those early  
42 career researchers [MTED participants] ... They've moved into very senior leadership positions and ...  
43 there's a network effect ... [This has] materially changed this university. It significantly turned it into  
44 a mentoring culture, a collaborative culture' (CO-M).  
45  
46  
47  
48

49  
50 Similarly, the EM leader highlighted the importance of contextualising MTED within longer-term  
51 sustainable organisational change, in this instance by providing training for MTED facilitators, which  
52 includes developing an implementation plan for mentoring in their organisation (Pfund, Spencer *et*  
53 *al.*, 2015; Spencer *et al.*, 2018).  
54  
55  
56

57  
58 Thirdly, there was some evidence that MTED effects were enhanced when training was provided for  
59 MTED facilitators (SA3; Matthews, 2016; Spencer *et al.*, 2018). There was also evidence of enhanced  
60

1  
2 effect, in the relatively few instances, where direct support for mentors and mentees was provided  
3  
4 by mentoring coordinators, either alongside MTED programmes or following upfront training  
5  
6 programmes (SA5; ONSIDE; PFM).  
7

8 Finally, two factors related to the wider context – funding and alignment with government policy –  
9  
10 had the potential to enhance or impede MTED effects. Significant funding enabled extensive  
11  
12 development work, including evidence reviews, engaging mentoring and digital experts to produce  
13  
14 high-quality learning schemes and resources, and rigorous research into the effectiveness of the MTED  
15  
16 programme (Kupersmidt *et al.*, 2017). However, funding alone was insufficient. Barriers such as a lack  
17  
18 of organisational support or provision of sustained support for mentoring relationships could still  
19  
20 impede effects, even in well-funded MTED (MBT). MTED that aligned with policy agendas, such as the  
21  
22 introduction of professional standards (Beutel *et al.*, 2017), enhanced the status of the programme  
23  
24 and often brought enhanced funding.

### 25 **Research limitations and strengths**

26 In common with all research projects, this study has methodological limitations. Firstly, restricting  
27  
28 the databases searched and specific sources to those written in English may have excluded some  
29  
30 relevant publications. Secondly, not all sources provided full details of MTED features nor evidence  
31  
32 of the impact of specific features, so the data we analysed may not represent the entirety of all the  
33  
34 included MTED programmes. Thirdly, although our inclusion criteria for research quality were met  
35  
36 for the rigour criteria, there was variation across the sources, and it was beyond the scope of our  
37  
38 study to weight the evidence. Fourthly, while the interviews generated rich and valuable insights and  
39  
40 interviewees led MTED programmes that had rigorous evidence of impact, the selection process and  
41  
42 relatively small number of interviewees may mean that they do not fully represent the perspectives  
43  
44 of all leaders of effective MTED programmes. Similarly, the secondary analysis, limited to studies for  
45  
46 which the authors had consent for further research, may not represent the wider evidence base.

47 Despite its limitations, the study has several strengths, including the transparency and rigour of  
48  
49 using an adaptive theory methodology to build theory from multiple sources and analyses, and  
50  
51 adherence to systematic principles in the initial and follow-up literature reviews. In addition,  
52  
53 trustworthiness (Guba and Lincoln, 1994) has been enhanced through the collaborative and  
54  
55 transparent analytical steps taken throughout the individual and meta-syntheses.

### 56 **Discussion**

57 The original and significant contribution of this multi-level meta-synthesis is the drawing out of key  
58  
59 principles relating to the MTED design, together with a synthesis of the specific content, pedagogical  
60

1  
2 approach and supporting resources, that are evident in MTED programmes found to have positive  
3 effects on mentors, mentees, mentoring and/or organisations. We summarise these in Table 2.  
4

5  
6 **Table 2 about here**  
7

8 These findings resonate with and substantiate pertinent conclusions in the wider mentoring  
9 literature (e.g., Law *et al.*, 2023; Searby and Brondyk, 2016). The principles and features provide  
10 useful guidance for new MTED providers, the review of existing programmes, organisational  
11 leadership teams and commissioners of MTED programmes. As the meta-synthesis has shown, there  
12 is no single MTED model that can be applied universally. Rather, each programme requires tailoring  
13 to the specific mentoring aims and context, the mentoring approach or model, organisations  
14 involved, and wider policy context, whilst crucially adhering to the key design principles and  
15 evidence-informed pedagogical approaches, content and resources.  
16

17 As indicated in Table 2, some key features appeared less frequently in the MTED programmes  
18 reviewed, but when they were present, there was good evidence to indicate that they supported  
19 positive outcomes. One, incorporating training for mentees, was highlighted as very important in  
20 two MTED programmes yet was not a feature in other MTED programmes. This indicates the need  
21 for commissioning programmes, and associated research, focused on effective practice in the  
22 training, education and development of mentees, which has been suggested can help mentees to  
23 cultivate an appropriate 'mentoring mindset' (Searby, 2014) and enable them to maximise the  
24 impact of the mentoring support available to them (Kochan, 2002; Tripses and Searby, 2008).  
25

26 The review also drew out the factors that enhanced or impeded potential MTED effects. Senior  
27 leaders, who understood and were committed to mentoring, enhanced potential MTED effects by  
28 creating the culture and conditions necessary, including time, for MTED attendance and enactment  
29 and support of the mentoring relationship. As is frequently identified in the wider literature, this  
30 study found that a lack of senior leader support is an impediment to successful mentoring  
31 (Cunningham, 2007) as well as being detrimental to the effectiveness of other forms of professional  
32 development (Boylan, 2018; Taylor *et al.*, 2011). An interesting finding from this study was  
33 uncovering the symbiotic relationship between effective MTED and creating the culture and  
34 conditions necessary for both effective MTED and mentoring. Some attention had been paid to  
35 researching the key features of an organisational architecture to support mentoring (Cunningham,  
36 2007; Hobson and Maxwell, 2020). This study suggests that research could usefully test the  
37 hypothesis that, by including a focus on cultural change in organisations, MTED can be more  
38 effective and sustainable.  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60



1  
2  
3 A further factor found to impact on MTED effectiveness was the provision of sustained support for  
4 mentors and mentees either by the MTED facilitator or a mentoring programme coordinator who is  
5 responsible, amongst other things, for recruiting mentors, matching mentors and mentees, and  
6 supporting mentoring relationships (Koczka, 2017). The presence of such a role was limited in this  
7 study, but where it was in place, positive effects were identified. This indicates that further research  
8 on the role and training, education and development of MTED facilitators and mentoring  
9 coordinators would be beneficial.  
10  
11  
12  
13

14  
15 Finally, we note the evidence of the positive impact of substantial and sustained investment on the  
16 quality and effectiveness of MTED. Our meta-synthesis suggests that policymakers, funders and  
17 other stakeholders need to consider what they and, with associated funding, MTED providers could  
18 do to ensure that favourable contextual conditions for MTED are established so that the potential  
19 positive impacts of both MTED and mentoring are more likely to be realised.  
20  
21  
22  
23

## 24 **Conclusion**

25  
26 In this paper, we have presented a meta-synthesis of the findings of three studies: an initial review  
27 synthesising data from a systematic review of literature published from 1 January 2010 to 31 July  
28 2020 and a secondary analysis of studies including research evidence on MTED, a follow-up  
29 systematic review of literature published from 1 August 2022 to 12 May 2023, and interviews with  
30 leaders of effective MTED programmes. We have enhanced the evidence base by identifying  
31 overarching design principles and specific pedagogical approaches, content and supporting  
32 resources that the evidence indicates underpins effective MTED. We hope that this will be helpful to  
33 practitioners in designing and reviewing MTED programmes, funders commissioning programmes  
34 and researchers seeking to further enhance the sparsely populated evidence base relating to MTED.  
35  
36  
37  
38  
39  
40  
41

## 42 **Disclosure statement**

43  
44 The authors report there are no competing interests to declare.  
45

## 46 **Funding details**

47  
48 The initial review included in the meta-synthesis was supported by the Education and Training  
49 Foundation, through funding from the Department for Education, under Grant PR&D 20/21.3.  
50  
51

## 52 **References**

53  
54 \*Literature sources included in initial review.

55  
56 \*\*Literature sources included in follow-on review

57  
58 \*\*\*Literature sources related to the secondary analyses  
59  
60

- 1  
2  
3 \*Aspfors, J. and Fransson, G. (2015), "Research on mentor education for mentors of newly qualified  
4 teachers: A qualitative meta-synthesis", *Teaching and Teacher Education*, Vol.48, pp.75–86.  
5 <https://doi.org/10.1016/j.tate.2015.02.004>  
6
- 7 Bambrick-Santoyo, P. (2012), *Leverage Leadership: A practical guide to building exceptional schools*,  
8 Jossey-Bass, San Francisco.  
9
- 10 \*Beutel, D., Crosswell, L., Willis, J., Spooner-Lane, R., Curtis, E. and Churchward, P. (2017), "Preparing  
11 teachers to mentor beginning teachers: an Australian case study", *International Journal of*  
12 *Mentoring and Coaching in Education*, Vol.6 No.3, pp.164–177.  
13 <https://doi.org/10.1108/ijmce-04-2017-0030>  
14
- 15 Boylan, M. (2018), "Enabling adaptive system leadership: Teachers leading professional  
16 development", *Educational Management Administration & Leadership*, Vol.46 No.1, pp.86–  
17 106.  
18
- 19 \*Brace, J. L., Baiduc, R. R., Drane, D. L., Flores, L. C., Beitel, G. J. and Lo, S. M. (2018), "Design,  
20 implementation, and evaluation of a multi-disciplinary professional development program  
21 for research mentors", *Mentoring & Tutoring: Partnership in Learning*, Vol.26 No.4, pp.377–  
22 399. <https://doi.org/10.1080/13611267.2018.1530101>  
23
- 24 British Educational Research Association (2018), *Ethical Guidelines for Educational Research*, fourth  
25 edition, London. Available at [https://www.bera.ac.uk/researchers-](https://www.bera.ac.uk/researchers-resources/publications/ethical-guidelines-for-educational-research-2018)  
26 [resources/publications/ethical-guidelines-for-educational-research-2018](https://www.bera.ac.uk/researchers-resources/publications/ethical-guidelines-for-educational-research-2018) (accessed 28 July  
27 2023)  
28
- 29 Bullough, R. V., Jr. (2005), "Being and becoming a mentor: school-based teacher educators and  
30 teacher educator identity", *Teaching and Teacher Education*, Vol.21, pp.143–155.  
31
- 32 \*\*Cabezas, V., Pereira, S., Figueroa, C. and Straub, C. (2023), "Teachers' perceptions about the  
33 delivery and methodology of a blended learning mentor training course: a case from Chile",  
34 *International Journal of Mentoring and Coaching in Education*, Vol.12 No.2, pp.177–193.  
35
- 36 Colley, H. (2002), "A "rough guide" to the history of mentoring from a Marxist feminist perspective",  
37 *Journal of Education for Teaching*, Vol.28 No.3, pp.257–273.  
38
- 39 Cunningham, B. (2007), "All the right features: towards an 'architecture' for mentoring trainee  
40 teachers in UK further education colleges", *Journal of Education for Teaching*, Vol.33 No.1,  
41 pp.83–97.  
42
- 43 Crasborn, F., Hennisson, P., Brouwer, N., Korthagen, F. and Bergen, T. (2008), "Promoting versatility  
44 in mentor teachers' use of supervisory skills", *Teaching and Teacher Education*, Vol.24,  
45 pp.499–514.  
46
- 47 Denton, C.A. and Hasbrouck, J. (2009), "A description of instructional coaching and its relationship to  
48 consultation", *Journal of Educational and Psychological Consultation*, Vol.19 No.2, pp.150–  
49 175.  
50
- 51 \*Garringer, M., Kupersmidt, J., Rhodes, J., Stelter, R. and Tai, T. (2015), *Elements of effective practice*  
52 *for mentoring* (4th Ed.), Boston, MA: MENTOR: The National Mentoring Partnership.  
53 [https://www.mentoring.org/new-site/wp-](https://www.mentoring.org/new-site/wp-content/uploads/2016/01/Final_Elements_Publication_Fourth.pdf)  
54 [content/uploads/2016/01/Final\\_Elements\\_Publication\\_Fourth.pdf](https://www.mentoring.org/new-site/wp-content/uploads/2016/01/Final_Elements_Publication_Fourth.pdf)  
55  
56  
57  
58  
59  
60

- 1  
2  
3 Guba, E.G. and Lincoln, Y.S. (1994), "Competing Paradigms in Qualitative Research", Denzin, N.K. and  
4 Lincoln, Y.S. (Ed.s), *Handbook of Qualitative Research*, Thousand Oaks, California: SAGE.
- 5  
6 \*\*Haqqee, Z., Goff, L., Knorr, K. and Gill, M. B. (2020), "The Impact of Program Structure and Goal  
7 Setting on Mentors' Perceptions of Peer Mentorship in Academia", *Canadian Journal of*  
8 *Higher Education*, Vol.50 No.2, pp.24–38. <https://doi.org/10.47678/cjhe.v50i2.188591>  
9
- 10  
11 \*Health Education England (2017), *Evaluation of the Health Education England Yorkshire and the*  
12 *Humber PGMDE Coaching Scheme*. Available at  
13 [https://www.yorksandhumberdeanery.nhs.uk/sites/default/files/coaching\\_scheme\\_evaluation](https://www.yorksandhumberdeanery.nhs.uk/sites/default/files/coaching_scheme_evaluation_report_2017.pdf)  
14 [report\\_2017.pdf](https://www.yorksandhumberdeanery.nhs.uk/sites/default/files/coaching_scheme_evaluation_report_2017.pdf) (accessed 28 July 2023)
- 15  
16 Heaton, J. (2004), *Reworking qualitative data*. London: Sage.
- 17  
18 Hobson, A.J. (2017), "The Terrors of Judgementoring and the Case for ONSIDE Mentoring for Early  
19 Career Teachers", Clutterbuck, D.A., Kochan, F.K., Lunsford, L., Dominguez, N. and Haddock-  
20 Millar, J. (Ed.s), *The SAGE Handbook of Mentoring*, pp.335-357, Los Angeles, SAGE  
21 Publications.
- 22  
23 \*\*\*Hobson, A. J., Castanheira, P., Doyle, K., Csigás, Z. and Clutterbuck, D. (2016), *The Mentoring*  
24 *across Professions (MaP) project: What can teacher mentoring learn from international good*  
25 *practice in employee mentoring and coaching?* London, Gatsby Charitable Foundation.  
26 Available at [http://www.gatsby.org.uk/uploads/education/reports/pdf/mentoring-across-](http://www.gatsby.org.uk/uploads/education/reports/pdf/mentoring-across-the-professions-final300816.pdf)  
27 [the-professions-final300816.pdf](http://www.gatsby.org.uk/uploads/education/reports/pdf/mentoring-across-the-professions-final300816.pdf) (accessed 28 July 2023)
- 28  
29  
30 \*\*\*Hobson, A.J. and Clements, K. (2020), *Further Forces External Mentoring Programme. Interim*  
31 *Report*, School of Education, University of Brighton.
- 32  
33 \*\*\*Hobson, A.J., Clements, K. and Káplár-Kodácsy, K. (2019a), *Introducing, Evaluating and*  
34 *Embedding ONSIDE Mentoring at [Mill] School: A Research & Development Project*, School of  
35 Education, University of Brighton.
- 36  
37 \*\*\*Hobson, A.J., Clements, K. and Káplár-Kodácsy, K. (2019b), *[Rousseau] Academy Federation*  
38 *Mentoring for Professional Growth: Research & Development Project, Final Report*, School of  
39 Education, University of Brighton.
- 40  
41  
42 \*\*\*Hobson, A.J., Clements, K. and Káplár-Kodácsy, K. (2019c), *Brighton & Hove City Council ONSIDE*  
43 *Head Teacher Peer Mentoring Pilot: Research & Development Project, Final Report*, School of  
44 Education, University of Brighton.
- 45  
46 Hobson, A.J. and Malderez, A. (2013), "Judgementoring and other threats to realizing the potential  
47 of school-based mentoring in teacher education", *International Journal of Mentoring and*  
48 *Coaching in Education*, Vol.2 No.2, pp.89-108.
- 49  
50  
51 \*\*\*Hobson, A.J. and Maxwell, B. (2020), "Mentoring substructures and superstructures: an  
52 extension and reconceptualisation of the architecture for teacher mentoring", *Journal of*  
53 *Education for Teaching: International Research and Pedagogy*, Vol.46 No.2, pp.184-206.
- 54  
55 Hobson, A.J., Maxwell, B., Káplár-Kodácsy, K. & Hotham, E. (2020) *The Nature and Impact of Effective*  
56 *Mentoring Training, Education and Development (MTED)*. London: Education & Training  
57 Foundation. Available at: [ETF\\_MTED\\_Final\\_Report\\_Hobson-et-](https://www.etf-foundation.co.uk/wp-content/uploads/2020/11/ETF-MTED-Final-Report-Hobson-et-al-2020-Final-AH-30-Nov.pdf)  
58 [al\\_2020\\_Final\\_AH\\_30\\_Nov.pdf](https://www.etf-foundation.co.uk/wp-content/uploads/2020/11/ETF-MTED-Final-Report-Hobson-et-al-2020-Final-AH-30-Nov.pdf) ([et-foundation.co.uk](https://www.etf-foundation.co.uk)) (accessed 28 July 2023)
- 59  
60

- 1  
2  
3 \*\*\*Hobson, A. J., Maxwell, B., Stevens, A., Doyle, K. and Malderez, A. (2015), *Mentoring and*  
4 *coaching for teachers in the further education and skills sector in England: Full report*,  
5 London: Gatsby Charitable Foundation. Available at  
6 <http://www.gatsby.org.uk/uploads/education/reports/pdf/mentoring-full-report.pdf>  
7 (accessed 28 July 2023)  
8  
9 Hobson, A.J. and van Nieuwerburgh, C.J. (2022), "Extending the research agenda on (ethical)  
10 coaching and mentoring in education: embracing mutuality and prioritising well-being",  
11 *International Journal of Mentoring and Coaching in Education*, Vol.11 No.1, pp.1-13.  
12  
13 \*House, S. C., Spencer, K. C. and Pfund, C. (2018), "Understanding how diversity training impacts  
14 faculty mentors' awareness and behavior", *International Journal of Mentoring and Coaching*  
15 *in Education*, Vol.7 No.1, pp.72–86. <https://doi.org/10.1108/ijmce-03-2017-0020>  
16  
17 \*Ingleby, E. (2014), "Developing reflective practice or judging teaching performance? The  
18 implications for mentor training" *Research in Post-Compulsory Education*, Vol.19 No.1,  
19 pp.18–32. <https://doi.org/10.1080/13596748.2014.872917>  
20  
21  
22 Ingersoll, R. and Strong, M. (2011), "The Impact of Induction and Mentoring Programs for Beginning  
23 Teachers: A Critical Review of the Research", *Review of Education Research*. Vol.81 No.2,  
24 pp.201-233. <https://doi.org/10.3102/0034654311403323>  
25  
26 Koczka, T. (2017), "The Role of the Mentoring Programme Co-ordinator", Clutterbuck, D.A., Kochan,  
27 F.K., Lunsford, L.G., Dominguez, N. and Haddock-Millar, J. (Ed.s), *The SAGE Handbook of*  
28 *Mentoring*. London: SAGE Publications. Chapter 17, pp.246–260.  
29  
30 Knowles, M. S. (1978), "Andragogy: Adult Learning Theory in Perspective", *Community College*  
31 *Review*, Vol.5 No.3, pp.9–20. <https://doi.org/10.1177/009155217800500302>  
32  
33  
34 Kochan, F. (2002), "Examining the organizational and human dimensions of mentoring: A textual  
35 data analysis", Kochan, F. (Ed.), *The organizational and human dimensions of successful*  
36 *mentoring programs and relationships*, pp.269–286, Greenwich, CT: Information Age Press.  
37  
38  
39 Kraft, M.A., Blazar, D. and Hogan, D. (2018), "The effect of teacher coaching on instruction and  
40 achievement: a meta-analysis of the causal evidence", *Review of Educational Research*,  
41 Vol.88 No.4, pp.547-588.  
42  
43 \*Kupersmidt, J. B., Stelter, R. L., Rhodes, J. E. and Stump, K. N. (2017), "Enhancing mentor efficacy  
44 and preparedness through web-based pre-match training", *Journal of Nonprofit Education*  
45 *and Leadership*, Vol.7 No.3, pp.197–216. <https://doi.org/10.18666/jnel-2017-v7-i3-7945>  
46  
47  
48 Kutsyruba, B. and Godden, L. (2019), "The role of mentoring and coaching as a means of supporting  
49 the well-being of educators and students", *International Journal of Mentoring and Coaching*  
50 *in Education*, Vol.8 No.4, pp.229–234.  
51  
52 Law, D.D., Domínguez, N., Garvey, B., Hager, M.J., Hales, K., Murrell, A.J., Onosu, G.O., Arocho, R.,  
53 Johnson, B.A., Legler, N. and Taylor, J.Y. (2023), *Making Connections: A Handbook for*  
54 *Effective Formal Mentoring Programs in Academia*, Utah State University. Available at:  
55 <https://uen.pressbooks.pub/makingconnections/> (accessed 28 July 2023)  
56  
57 Layder, D. (1998), *Sociological practice: Linking theory and research*, London: Sage.  
58  
59  
60

- 1  
2  
3 Lee, J.C. and Feng, S. (2007), "Mentoring support and the professional development of beginning  
4 teachers: a Chinese perspective", *Mentoring and Tutoring: Partnership in Learning*, Vol.15  
5 No.3, pp.243-263.  
6  
7 Lejonberg, E., Elstad, E. and Christophersen, K.A. (2015), "Mentor education: challenging mentors'  
8 beliefs about mentoring", *International Journal of Mentoring and Coaching in Education*, Vol.  
9 4 No.2, pp.42-158.  
10  
11 \*\*\*Manning, C. (2015), *Judgemental and Developmental approaches to mentoring in Post-*  
12 *Compulsory Initial Teacher Training: An exploration into mentors' and mentees' perceptions*  
13 *of their relationship*, University of Brighton, MA Thesis.  
14  
15 \*\*\*Manning, C. and Hobson, A.J. (2017), "Judgemental and developmental mentoring in Further  
16 Education Initial Teacher Education in England: Mentor and mentee perspectives", *Research*  
17 *in Post-compulsory Education*, Vol.22 No.4, pp.574-595.  
18  
19 \*\*Matheson, D. W., Rempe, G., Saltis, M. N. and Nowag, A. D. (2020), "Community engagement:  
20 mentor beliefs across training and experience", *Mentoring & Tutoring: Partnership in*  
21 *Learning*, Vol.28 No.1, pp.26-43.  
22  
23 \*Matthews, P. (2016), *Incremental coaching in schools. Small steps to professional mastery: An*  
24 *evaluation and guide for leaders*, Ambition School Leadership. Available at [https://s3.eu-](https://s3.eu-west-2.amazonaws.com/ambition-institute/documents/Incremental_coaching_-_full_report.pdf)  
25 [west-2.amazonaws.com/ambition-institute/documents/Incremental\\_coaching\\_ -](https://s3.eu-west-2.amazonaws.com/ambition-institute/documents/Incremental_coaching_-_full_report.pdf)  
26 [full\\_report.pdf](https://s3.eu-west-2.amazonaws.com/ambition-institute/documents/Incremental_coaching_-_full_report.pdf) (accessed 28 July 2023)  
27  
28  
29 Maxwell, B., Hobson, A. and Manning, C. (2022), *Mentoring and coaching trainee and early career*  
30 *teachers: Conceptual review*, National Institute of Teaching.  
31 [https://niot.s3.amazonaws.com/documents/Conceptual\\_Review\\_Mentoring\\_-\\_Nov\\_22.pdf](https://niot.s3.amazonaws.com/documents/Conceptual_Review_Mentoring_-_Nov_22.pdf)  
32  
33  
34 \*Melton, J., Miller, M. and Brobst, J. (2019), "Mentoring the mentors: Hybridizing professional  
35 development to support cooperating teachers' mentoring practice in science",  
36 *Contemporary Issues in Technology and Teacher Education*, Vol.19 No.1, pp.23-44.  
37  
38 \*Miller, M., Hanley, D. and Brobst, J. (2019), "The impacts of a research-based model for mentoring  
39 elementary preservice teachers in science", *Journal of Science Teacher Education*, Vol.30  
40 No.4, pp.357-378. <https://doi.org/10.1080/1046560x.2019.1573127>  
41  
42  
43 Moher, D., Liberati, A., Tetzlaff, J. and Altman, D.G., (2009), "Preferred reporting items for systematic  
44 reviews and meta-analyses: the PRISMA statement", *PLoS Med.*, Vol.6 No.7.  
45 doi:[10.1371/journal.pmed.1000097](https://doi.org/10.1371/journal.pmed.1000097)  
46  
47 \*Nearing, K. A., Nuechterlein, B. M., Tan, S., Zerzan, J. T., Libby, A. M. and Austin, G. L. (2020),  
48 "Training mentor-mentee pairs to build a robust culture for mentorship and a pipeline of  
49 clinical and translational researchers", *Academic Medicine*, Vol.95 No.5, pp.730-736.  
50 <https://doi.org/10.1097/acm.0000000000003152>  
51  
52  
53 Ng, P.T. (2012), "Mentoring and coaching educators in the Singapore education system",  
54 *International Journal of Mentoring and Coaching in Education*, Vol.1 No.1, pp.24-35.  
55  
56 Nugent, G., Houston, J., Kunz, G. and Chen, D. (2023), "Analysis of instructional coaching: what, why  
57 and how", *International Journal of Mentoring and Coaching in Education*, Vol.12 No.4, pp.  
58 402-423.  
59  
60

- 1  
2  
3 \*Pfund, C., Branchaw, J. L. and Handelsman, J. (2015), *Entering Mentoring: A Seminar to Train a New*  
4 *Generation of Scientists*, 2<sup>nd</sup> Ed., New York: Macmillan.
- 5  
6 \*Pfund, C., Spencer, K. C., Asquith, P., House, S. C., Miller, S. and Sorkness, C. A. (2015), "Building  
7 national capacity for research mentor training: An evidence-based approach to training the  
8 trainers", *CBE—Life Sciences Education*, Vol.14 No.2, pp. 1-12.  
9 <https://doi.org/10.1187/cbe.14-10-0184>
- 10  
11 \* Pfund, C., House, S., Spencer, K. C., Asquith, P., Carney, P., Masters, K. S., McGee, R., Shanedling, J.,  
12 Vecchiarelli, S. and Fleming, M. (2013), "A research mentor training curriculum for clinical  
13 and translational researchers", *Clinical and Translational Science*, Vol.6 No.1, pp.26–33.  
14 <https://doi.org/10.1111/cts.12009>
- 15  
16 Research Excellence Framework (REF) (2019), *Panel criteria and working methods: REF2021*.  
17 Available at: [ref-2019\\_02-panel-criteria-and-working-methods.pdf](ref-2019_02-panel-criteria-and-working-methods.pdf) (accessed 07 October  
18 2023)
- 19  
20  
21 \*\*\*Robinson, C. and Hobson, A.J. (2017), *Mentor education and development in the Further*  
22 *Education sector in England*, Research report for Gatsby Charitable Foundation, University of  
23 Brighton, Education Research Centre.
- 24  
25 Ryan, R. M. and Deci, E. L. (2000), "Self-determination theory and the facilitation of intrinsic  
26 motivation, social development and well-being", *American Psychologist*, Vol.55 No.1, pp.  
27 68–78.
- 28  
29 Seale, C. (2011), "Secondary analysis of qualitative data", Silverman, D. (Ed.), *Qualitative research*,  
30 London: Sage.
- 31  
32 Searby, L. (2014), "The protégé mentoring mindset: a framework for consideration" *International*  
33 *Journal of Mentoring and Coaching in Education*, Vol.3 No.3, pp.255–276.
- 34  
35 Searby, L. S. and Brondyk, S. K. (2016), *Best Practices in Mentoring for Teacher and Leader*  
36 *Development*", Charlotte, NC: Information Age Publishing.
- 37  
38 \*Sheri, K., Too, J. Y. J., Chuah, S. E. L., Toh, Y. P., Mason, S. and Radha Krishna, L. K. (2019), "A scoping  
39 review of mentor training programs in medicine between 1990 and 2017", *Medical*  
40 *Education Online*, Vol.24 No.1, pp.1-16. <https://doi.org/10.1080/10872981.2018.1555435>
- 41  
42 \*Spencer, K. C., McDaniels, M., Utzerath, E., Rogers, J. G., Sorkness, C. A., Asquith, P., & Pfund, C.  
43 (2018), "Building a sustainable national infrastructure to expand research mentor training",  
44 *CBE - Life Sciences Education*, Vol.17 No.3, pp.1-11.  
45 <https://www.lifescied.org/doi/10.1187/cbe.18-03-0034>
- 46  
47 \*\*Spencer, R., Gowdy, G., Herrera, C., Heubach, J., Slep, A. S. and Cavell, T. A. (2020), "Web-based  
48 training for school-based mentors of military-connected youth: A multi-phase development  
49 study", *Journal of Primary Prevention*, Vol.41 No.6, pp. 567–583.
- 50  
51 Smith, M.L., Van Oosten, E.B., and Boyatzis, R.E. (2009), "Coaching for sustained desired change",  
52 *Research in Organizational Change and Development*, Vol.17, pp.145-173.
- 53  
54 Taylor, M., Yates, A., Meyer, L. H. and Kinsella, P. (2011), "Teacher professional leadership in support  
55 of teacher professional development", *Teaching and teacher education*, Vol.27 No.1, pp.85-  
56 94.
- 57  
58  
59  
60

- 1  
2  
3 Thomas, D. R. (2006), "A general inductive approach for analyzing qualitative evaluation data",  
4 *American Journal of Evaluation*, Vol.27 No.2, pp.237–246.  
5 <https://doi.org/10.1177/1098214005283748>  
6  
7 Tomlinson, E. and Parker, R. (2021), *Six-Step Stakeholder Engagement Framework*, Cochrane.  
8 [https://training.cochrane.org/sites/training.cochrane.org/files/public/uploads/Six%20Step%](https://training.cochrane.org/sites/training.cochrane.org/files/public/uploads/Six%20Step%20Stakeholder%20Engagement%20Framework.pdf)  
9 [20Stakeholder%20Engagement%20Framework.pdf](https://training.cochrane.org/sites/training.cochrane.org/files/public/uploads/Six%20Step%20Stakeholder%20Engagement%20Framework.pdf) (accessed 28 July 2023).  
10  
11 Thompson, C. (2016), "The magic of mentoring: a democratic approach to mentoring trainee  
12 teachers in post-compulsory education", *Research in Post-Compulsory Education*, Vol.21  
13 No.3, pp.246-259.  
14  
15 Tripses, J. and Searby, L. (2008), "Developing a case for intentional protégé preparation in  
16 educational leadership programs", *NCPEA Education Leadership Review*, Vol.9 No.22,  
17 pp.175–184.  
18  
19  
20 \*\*van Ede, A. E., Claessen, R., van Gils, M., van Hoogstraten, C., van den Berg, I. and van Gurp, P. J.  
21 M. (2023), "The teacher as coach: An innovative, longitudinal training for (bio)medical  
22 educators", *Clinical Teacher*, Vol.20 No.2, pp.1–9.  
23  
24 \*Vincent, K. (2018), "Researching the impact of changes to mentoring approaches within a large  
25 initial teacher education partnership", *CollectivED Working Papers*, 4, pp.18-24, Leeds  
26 Beckett University. [https://www.leedsbeckett.ac.uk/-](https://www.leedsbeckett.ac.uk/-/media/files/research/collectived/collectived-june-2018-issue-4.pdf)  
27 [/media/files/research/collectived/collectived-june-2018-issue-4.pdf](https://www.leedsbeckett.ac.uk/-/media/files/research/collectived/collectived-june-2018-issue-4.pdf)  
28  
29 Wang, J. (2001), "Contexts of mentoring and opportunities for learning to teach: A comparative  
30 study of mentoring practice", *Teaching and Teacher Education*, Vol.17 No.1, pp.51-73.  
31  
32 Wang, J. and Odell, S. J. (2002), "Mentored learning to teach according to standards-based reform: a  
33 critical review", *Review of Educational Research*, Vol.72, No.3 pp.481–546.  
34  
35  
36 \*\*Whiting, J. R. and Wickham, S. (2020), "Does a training programme improve the perceived  
37 confidence and performance of student mentors in their delivery of a widening access to  
38 medicine programme?", *Widening Participation & Lifelong Learning*, Vol.22 No.3, pp. 88–  
39 112.  
40  
41 \*Willis, J., Churchward, P., Beutel, D., Spooner-Lane, R., Crosswell, L. and Curtis, E. (2019), "Mentors  
42 for beginning teachers as middle leaders: the messy work of recontextualising", *School*  
43 *Leadership & Management*, Vol.39 No.3–4, pp.334–351.  
44 <https://doi.org/10.1080/13632434.2018.1555701>  
45  
46  
47 Yusko, B. and Feiman-Nemser, S. (2008), "Embracing Contraries: Combining Assistance and  
48 Assessment in New Teacher Induction", *Teachers College Record*, Vol.110 No.7, pp.1-12.  
49

---

51  
52 <sup>i</sup> The Education and Training Foundation is the expert body for professional development and standards in  
53 Further Education and Training in England.  
54  
55  
56  
57  
58  
59  
60

Table 1: Content of effective MTED

Content	Exemplar evidence	Includes / illustration
Developing participants' knowledge and understanding, attitudes towards and skills in building, nurturing, sustaining and ending mentoring relationships	SA5–SA8, Garringer <i>et al.</i> , 2015; Sheri <i>et al.</i> , 2019	Understanding the mentoring life cycle and appropriate approaches at each stage (PFM; Beutel <i>et al.</i> , 2017; van Ede <i>et al.</i> , 2023).
Aligning mentor and mentee expectations and addressing misalignments	House <i>et al.</i> , 2018; Kupersmidt <i>et al.</i> , 2017; Matheson <i>et al.</i> , 2020	Considering how personal and professional relationships may influence expectations (EM), acknowledging the knowledge and skills of mentees and the reciprocal nature of the relationship (ONside), negotiating a focus for improvement and goal setting (all effective MTED interviewees).
Establishing deep relational trust and sustaining confidentiality in mentoring relationships	Beutel <i>et al.</i> , 2017; ONside	'Mentors were advised that mentees should be able to discuss their teaching and their work in a "safe" environment ... [and] mentoring conversations should remain confidential' (Beutel <i>et al.</i> , 2017, pp. 168–169).
Building interpersonal and communication skills	Beutel <i>et al.</i> , 2017; Cabezas <i>et al.</i> , 2023	Structuring and framing mentoring conversations (SA4; Matthews, 2016; Melton <i>et al.</i> , 2019); communication skills – particularly active listening and questioning (Aspfors and Fransson, 2015; House <i>et al.</i> , 2018) and giving feedback (Brace <i>et al.</i> , 2018; Parker <i>et al.</i> , 2021; Sheri <i>et al.</i> , 2019).
Balancing support and challenge	Aspfors and Fransson, 2015; Beutel <i>et al.</i> , 2017; Sheri <i>et al.</i> , 2019	In some programmes, this additionally incorporated how to negotiate the conflict inherent in providing support whilst also assessing mentees' practice (Ingelby, 2014).
Handling challenges, difficult conversations, ethical issues and dilemmas	Aspfors and Fransson, 2015; Brace <i>et al.</i> , 2018; Sheri <i>et al.</i> , 2019	How to challenge mentees appropriately (MBT) and the importance of creating and deepening the trust in mentor/mentee pairing to foster the necessary conditions for effective challenge (ONside).
The professional work of the mentee and how mentors can best support this	Miller <i>et al.</i> 2019, Parker <i>et al.</i> 2021, Whiting and Wickham 2020	Preparing mentors of beginner teachers to adopt developmental approaches to lesson observation and support mentees' development of reflective practice (Beutel <i>et al.</i> , 2017; Cabezas <i>et al.</i> , 2023; Ingleby, 2014). For programmes focusing on promoting mentees' academic career progression - CV building and making grant applications (House <i>et al.</i> , 2018; Nearing, 2000; Pfund 2013).
Understanding equality and diversity, addressing issues, and working with diverse groups	Brace <i>et al.</i> , 2018; Sheri <i>et al.</i> , 2019; Spencer <i>et al.</i> 2020	How diversity influences mentor-mentee interactions; the potential impact of assumptions, preconceptions biases and prejudices on the relationship and how to manage them; and engaging mentees in conversations about diversity to foster a sense of belonging (EM).
Developing plans	Cabezas <i>et al.</i> , 2023; Parker <i>et al.</i> , 2021; Willis <i>et al.</i> , 2019	Plans for own mentoring approach and activity (EM and PFM) or career development (Nearing, 2020) and/or implementing mentoring in their school (Willis <i>et al.</i> , 2019). Supporting mentees to develop plans to improve their practices (MTB).



1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46

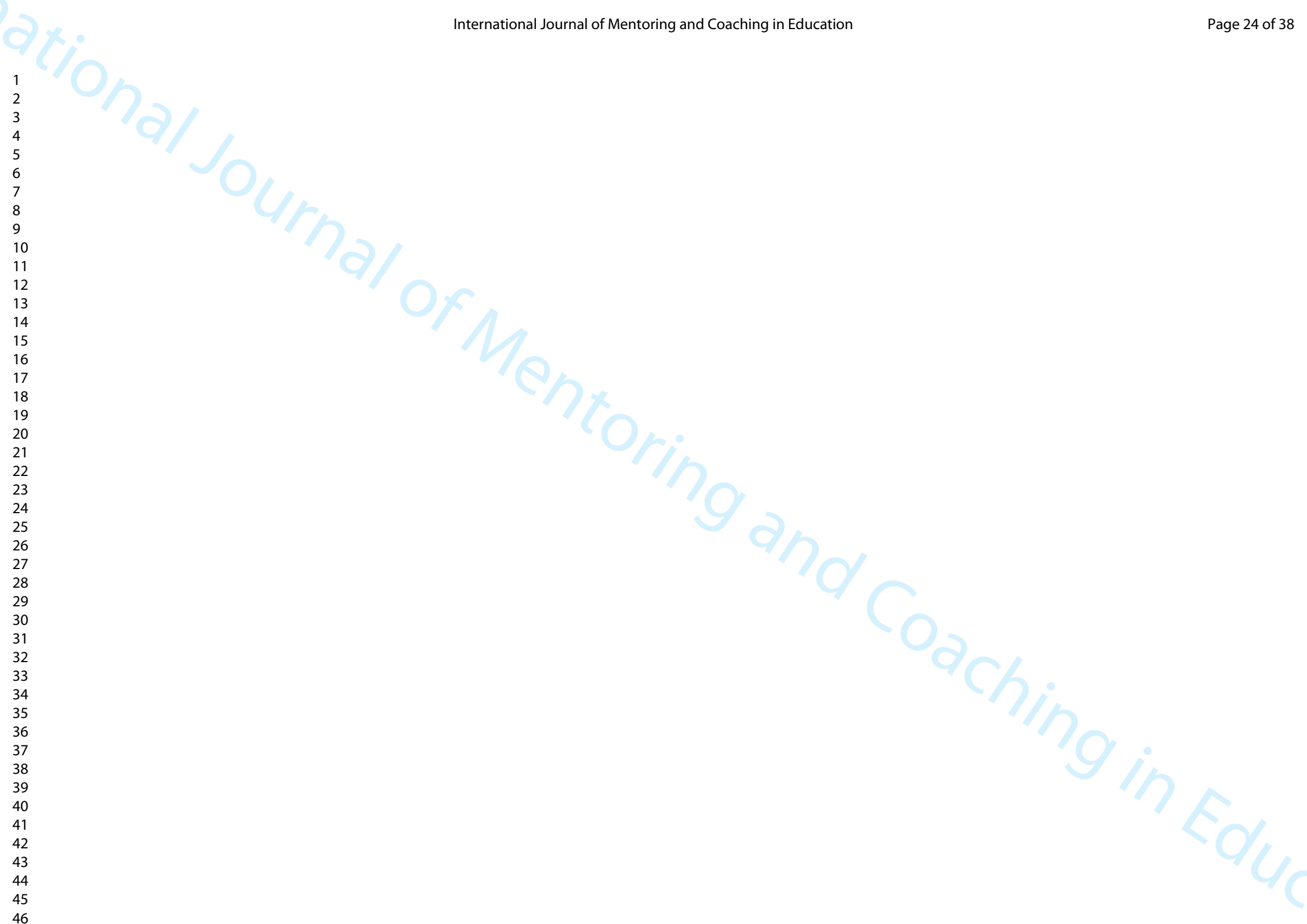


Table 2: Evidence on the nature and key features of effective MTED

<p><b>Design principles</b></p> <ul style="list-style-type: none"> <li>• Evidence-based – empirical evidence and theory.</li> <li>• Ongoing research and evaluation to support further development.</li> <li>• Tailored to the participants, the work being undertaken by mentees, the organisation/s where mentoring was enacted and the wider context while maintaining the underpinning principles.</li> <li>• Linked to sustained support over the duration of the mentoring relationship.</li> </ul> <p><i>Limited evidence of presence in effective MTED but good evidence of effect when present:</i></p> <ul style="list-style-type: none"> <li>• Training mentees as well as mentors.</li> </ul> <p><i>Mixed evidence</i></p> <ul style="list-style-type: none"> <li>• Modality – mixed views on the respective effectiveness of face-to-face, online or blended modes but consensus that mode needs to be matched to the aspect of mentors' development being supported and the MTED scale and context.</li> </ul>
<p><b>Pedagogical approach and resources</b></p> <ul style="list-style-type: none"> <li>• Participatory approach based on adult learning principles incorporating a range of interactive methods, including opportunities for participants to apply and extend their understanding and skills by: <ul style="list-style-type: none"> <li>○ observing, practising and receiving feedback on their enactment of the mentoring approach or model advocated by the MTED programme;</li> <li>○ critically reflecting on the mentoring approach or model and mentoring practice.</li> </ul> </li> <li>• Establishing a climate for effective learning and network building by providing opportunities for participants to interact and develop open and trusting relationships.</li> <li>• Extensive supporting resources for learning and mentoring.</li> </ul> <p><i>More limited evidence of the presence in effective MTED but good evidence of effect when present:</i></p> <ul style="list-style-type: none"> <li>• Facilitation and resources designed to be 'sticky'.</li> </ul>
<p><b>Content</b></p> <ul style="list-style-type: none"> <li>• The mentoring relationship: <ul style="list-style-type: none"> <li>○ enacting the espoused approach to, or model of, mentoring;</li> <li>○ developing participants' knowledge and understanding, attitudes towards, and skills in, building, nurturing, sustaining and ending relationships;</li> <li>○ aligning mentor and mentee expectations and addressing misalignment – including understanding how personal and professional relationships influence expectations, acknowledging the knowledge and skills of mentees and the reciprocal nature of the relationship, negotiating a focus and goal setting;</li> <li>○ establishing deep relational trust and sustaining confidentiality;</li> <li>○ building participants' interpersonal and communication skills – including structuring and framing mentoring conversations, with particular focus on active listening, questioning and giving feedback;</li> <li>○ balancing support and challenge, and, if appropriate, how to negotiate the conflict inherent in providing support, whilst also assessing mentees' practice;</li> <li>○ handling challenges, difficult conversations, ethical issues and dilemmas.</li> </ul> </li> <li>• The professional work of the mentee and how mentors can best support this.</li> <li>• Understanding equality and diversity and addressing issues.</li> <li>• Developing plans for mentoring and/or supporting mentees to develop plans.</li> </ul>

## Effective mentor training, education and development: a qualitative multi-level meta-synthesis

### Appendix 1: Initial systematic literature review: included sources

Table adapted from Table 1 in Hobson *et al.* (2020), p. 15.

Critical Summary	AL/GL*	Source	Data sources/Methods
1	AL	Aspfors, J. and Fransson, G. (2015), "Research on mentor education for mentors of newly qualified teachers: A qualitative meta-synthesis", <i>Teaching and Teacher Education</i> , Vol.48, pp.75–86. <a href="https://doi.org/10.1016/j.tate.2015.02.004">https://doi.org/10.1016/j.tate.2015.02.004</a>	Qualitative meta-synthesis of published research on mentor education between December 2013 and May 2014 analyzing 10 research items in details.
2	AL	Beutel, D., Crosswell, L., Willis, J., Spooner-Lane, R., Curtis, E. and Churchward, P. (2017), "Preparing teachers to mentor beginning teachers: an Australian case study", <i>International Journal of Mentoring and Coaching in Education</i> , Vol.6 No.3, pp.164–177. <a href="https://doi.org/10.1108/ijmce-04-2017-0030">https://doi.org/10.1108/ijmce-04-2017-0030</a>	Qualitative case study of 17 mentors completing a mentor preparation programme, including individual interviews (n=11), a paired interview (n=2), and a focus group (n=4).
	AL	Willis, J., Churchward, P., Beutel, D., Spooner-Lane, R., Crosswell, L. and Curtis, E. (2019), "Mentors for beginning teachers as middle leaders: the messy work of recontextualising", <i>School Leadership &amp; Management</i> , Vol.39 No.3–4, pp.334–351. <a href="https://doi.org/10.1080/13632434.2018.1555701">https://doi.org/10.1080/13632434.2018.1555701</a>	Data/methods as above.
3	AL	Brace, J. L., Baiduc, R. R., Drane, D. L., Flores, L. C., Beitel, G. J. and Lo, S. M. (2018), "Design, implementation, and evaluation of a multi-disciplinary professional development program for research mentors", <i>Mentoring &amp; Tutoring: Partnership in Learning</i> , Vol.26 No.4, pp.377–399. <a href="https://doi.org/10.1080/13611267.2018.1530101">https://doi.org/10.1080/13611267.2018.1530101</a>	Mixed-methods study of 64 mentors who completed at least three of the six workshops in three cohorts filling out survey with quantitative and open-ended questions.
4	AL	Garvey, R. and Westlander, G. (2012), "Training Mentors - Behaviors which bring positive outcomes in mentoring", Passmore, J., Peterson, D.B. and Freire, T. (Ed.s), <i>The Wiley-Blackwell Handbook of the Psychology of Coaching and Mentoring</i> , pp.243–265. <a href="https://doi.org/10.1002/9781118326459.ch13">https://doi.org/10.1002/9781118326459.ch13</a>	Meta-synthesis of a wide selection of empirical studies from journals, book chapters, and PhD theses, grouped into themes and sub-themes.
5	AL	House, S. C., Spencer, K. C. and Pfund, C. (2018), "Understanding how diversity training impacts faculty mentors' awareness and behavior", <i>International Journal</i>	Secondary qualitative analysis of interviews with 135 trained mentors from 16 institutions (USA and Puerto Rico).

		<i>of Mentoring and Coaching in Education</i> , Vol.7 No.1, pp.72–86. <a href="https://doi.org/10.1108/ijmce-03-2017-0020">https://doi.org/10.1108/ijmce-03-2017-0020</a>	
	AL	Pfund, C., House, S., Spencer, K., Asquith, P., Carney, P., Masters, K. S., McGee, R., Shanedling, J., Vecchiarelli, S. and Fleming, M. (2013), “A research mentor training curriculum for clinical and translational researchers”, <i>Clinical and Translational Science</i> , Vol.6 No.1, pp.26–33. <a href="https://doi.org/10.1111/cts.12009">https://doi.org/10.1111/cts.12009</a>	Quantitative analysis of post-training survey of 135 mentors from 16 institutions.
6	AL	Ingleby, E. (2014), “Developing reflective practice or judging teaching performance? The implications for mentor training” <i>Research in Post-Compulsory Education</i> , Vol.19 No.1, pp.18–32. <a href="https://doi.org/10.1080/13596748.2014.872917">https://doi.org/10.1080/13596748.2014.872917</a>	Mixed methods research of questionnaire data that has been gathered from 80 initial teacher training mentors and semi-structured interview data from eight mentors.
7	AL	Kupersmidt, J. B., Stelter, R. L., Rhodes, J. E. and Stump, K. N. (2017), “Enhancing mentor efficacy and preparedness through web-based pre-match training”, <i>Journal of Nonprofit Education and Leadership</i> , Vol.7 No.3, pp.197–216. <a href="https://doi.org/10.18666/jnel-2017-v7-i3-7945">https://doi.org/10.18666/jnel-2017-v7-i3-7945</a>	Randomised controlled trial of participating mentors (n=80) and waitlist control group (n=47) from 51 varied participating mentoring programmes.
	GL	Garringer, M., Kupersmidt, J., Rhodes, J., Stelter, R. and Tai, T. (2015), <i>Elements of effective practice for mentoring</i> (4th Ed.), Boston, MA: MENTOR: The National Mentoring Partnership. <a href="https://www.mentoring.org/new-site/wp-content/uploads/2016/01/Final_Elements_Publication_Fourth.pdf">https://www.mentoring.org/new-site/wp-content/uploads/2016/01/Final_Elements_Publication_Fourth.pdf</a>	Data/methods as above
8**	AL	Lyons, M. D., Jones, S. J., Smith, B. H., McQuillin, S. D., Richardson, G., Reid, E., and McClellan, A. (2017). “Motivation coaching training for instructional coaches: a pilot study of motivational interviewing skills training”, <i>Mentoring and Tutoring: Partnership in Learning</i> , Vol. 25 No.5, pp.548–565. <a href="https://doi.org/10.1080/13611267.2017.1415796">https://doi.org/10.1080/13611267.2017.1415796</a>	Semi-randomised waitlist control study of 38 coach participants randomly assigned with some adjustment for coaches who couldn't make training dates.
9	AL	Melton, J., Miller, M. and Brobst, J. (2019), “Mentoring the mentors: Hybridizing professional development to support cooperating teachers' mentoring practice in science”, <i>Contemporary Issues in Technology and Teacher Education</i> , Vol.19 No.1, pp.23-44.	Qualitative thematic comparison pre- and post-implementation of a hybridised MTED programme of five mentors' (1) transcribed mentoring conversations (n=17, nine pre- and eight post-

			implementation) and (2) written responses to two reflective prompts. Participants joined the programme after changes in response to the findings of Miller's <i>et al.</i> 's (2019) study (below).
	AL	Miller, M., Hanley, D. and Brobst, J. (2019), "The impacts of a research-based model for mentoring elementary preservice teachers in science", <i>Journal of Science Teacher Education</i> , Vol.30 No.4, pp.357–378. <a href="https://doi.org/10.1080/1046560x.2019.1573127">https://doi.org/10.1080/1046560x.2019.1573127</a>	Mixed methods quasi-experimental, single-group, repeated measures study. Data sources: mentor (n=46) and mentee (n=115) surveys, mentoring conversations and case studies to examine impacts of mentoring training on mentors' beliefs about effective science instruction.
10	AL	Nearing, K. A., Nuechterlein, B. M., Tan, S., Zerzan, J. T., Libby, A. M. and Austin, G. L. (2020), "Training mentor–mentee pairs to build a robust culture for mentorship and a pipeline of clinical and translational researchers", <i>Academic Medicine</i> , Vol.95 No.5, pp.730–736. <a href="https://doi.org/10.1097/acm.0000000000003152">https://doi.org/10.1097/acm.0000000000003152</a>	Quantitative analysis of annual, longitudinal, pre- and post-training evaluation survey of mentors (n = 56) and mentees: (n=64) from 3 cohorts of the mentoring programme at the University of Colorado Denver.
11***	AL	Pfund, C., Spencer, K. C., Asquith, P., House, S. C., Miller, S. and Sorkness, C. A. (2015a), "Building national capacity for research mentor training: An evidence-based approach to training the trainers", <i>CBE—Life Sciences Education</i> , Vol.14 No.2, pp. 1-12. <a href="https://doi.org/10.1187/cbe.14-10-0184">https://doi.org/10.1187/cbe.14-10-0184</a>	Multi-level quantitative analysis of facilitator training evaluation dataset (n=281) between 2006-2016 (surveys and data analytics)
	AL	Spencer, K. C., McDaniels, M., Utzerath, E., Rogers, J. G., Sorkness, C. A., Asquith, P., & Pfund, C. (2018), "Building a sustainable national infrastructure to expand research mentor training", <i>CBE - Life Sciences Education</i> , Vol.17 No.3, pp.1-11. <a href="https://www.lifescied.org/doi/10.1187/cbe.18-03-0034">https://www.lifescied.org/doi/10.1187/cbe.18-03-0034</a>	Data/methods as above
12	AL	Sheri, K., Too, J. Y. J., Chuah, S. E. L., Toh, Y. P., Mason, S. and Radha Krishna, L. K. (2019), "A scoping review of mentor training programs in medicine between 1990 and 2017", <i>Medical Education Online</i> , Vol.24 No.1, pp.1-16. <a href="https://doi.org/10.1080/10872981.2018.1555435">https://doi.org/10.1080/10872981.2018.1555435</a>	Scoping review of literature based on Levac et al.'s (2010) refinement of Arksey and O'Malley's (2005) framework for scoping reviews, including 68 studies from 1990-2017 on mentor training in medical education.

13	GL	Health Education England (2017), <i>Evaluation of the Health Education England Yorkshire and the Humber (HEE Y&amp;H) PGMDE Coaching Scheme</i> . Available at <a href="https://www.yorksandhumberdeanery.nhs.uk/sites/default/files/coaching_scheme_evaluation_report_2017.pdf">https://www.yorksandhumberdeanery.nhs.uk/sites/default/files/coaching_scheme_evaluation_report_2017.pdf</a> (accessed 5 August 2020)	Analysis of telephone interviews with seven coaches and seven coachees and other data provided by the leaders of the Postgraduate Medical and Dental Education (PGMDE) coaching scheme.
14	GL	Matthews, P. (2016), <i>Incremental coaching in schools. Small steps to professional mastery: An evaluation and guide for leaders</i> , Ambition School Leadership. Available at <a href="https://s3.eu-west-2.amazonaws.com/ambition-institute/documents/Incremental_coaching_-_full_report.pdf">https://s3.eu-west-2.amazonaws.com/ambition-institute/documents/Incremental_coaching_-_full_report.pdf</a> (accessed 2 August 2020)	Mixed methods study including survey of coach participants (n=128), interviews with coaches, coaches and senior leaders (over 30), observation of lessons and coaching observations and document review.
15	GL	Vincent, K. (2018), "Researching the impact of changes to mentoring approaches within a large initial teacher education partnership", <i>CollectivED Working Papers</i> , 4, pp.18-24, Leeds Beckett University. <a href="https://www.leedsbeckett.ac.uk/-/media/files/research/collectived/collectived-june-2018-issue-4.pdf">https://www.leedsbeckett.ac.uk/-/media/files/research/collectived/collectived-june-2018-issue-4.pdf</a>	Thematic analysis of data generated on perspectives of mentoring from: individual mentor conversations (n=9) - which included elicitation exercises; structured group discussion at area meetings of one university/school partnership; and related documents and data.

**Notes:**

\*AL=Academic literature; GL = Grey literature

\*\*CS8 found no impact of the MTED on which it focused but was retained as this was a rigorous study and can be reliably drawn upon to identify issues that need to be addressed in MTED design.

\*\*\*Whilst CS11 is related to and part of the same overall project as CS5, they have different foci so separate critical summaries were constructed.

## Effective mentor training, education and development: a qualitative multi-level meta-synthesis

### Appendix 2: Initial review secondary analysis sources

Study No.	Focus	Associated literature	Data sources/methods
SA1	Mentoring and Coaching Teachers in Further Education and Training Sector in England (2014-15)	<p>Hobson, A. J., Maxwell, B., Stevens, A., Doyle, K. and Malderez, A. (2015), <i>Mentoring and coaching for teachers in the further education and skills sector in England: Full report</i>, London: Gatsby Charitable Foundation. Available at <a href="http://www.gatsby.org.uk/uploads/education/reports/pdf/mentoring-full-report.pdf">http://www.gatsby.org.uk/uploads/education/reports/pdf/mentoring-full-report.pdf</a> (accessed 28 July 2023)</p> <p>Hobson, A.J. and Maxwell, B. (2020), "Mentoring substructures and superstructures: an extension and reconceptualisation of the architecture for teacher mentoring", <i>Journal of Education for Teaching: International Research and Pedagogy</i>, Vol.46 No.2, pp.184-206.</p>	Mixed methods study comprising interviews with teachers, mentors and other stakeholders (n=40), and a national teacher survey (n=392).
SA2	Judgemental and Developmental approaches to mentoring in Post-Compulsory Initial Teacher Training: An exploration into mentors' and mentees' perceptions of their relationship (2014-15)	<p>Manning, C. (2015), <i>Judgemental and Developmental approaches to mentoring in Post-Compulsory Initial Teacher Training: An exploration into mentors' and mentees' perceptions of their relationship</i>, University of Brighton, MA Thesis.</p> <p>Manning, C. and Hobson, A.J. (2017), "Judgemental and developmental mentoring in Further Education Initial Teacher Education in England: Mentor and mentee perspectives", <i>Research in Post-compulsory Education</i>, Vol.22 No.4, pp.574-595.</p>	Case study of trainee teachers and mentors on an Initial Teacher Education programme at a further education college in the south of England. Data generated from initial survey of 22 trainees, from which seven trainees and their mentors also participated in part-structured individual interviews and direct observation of one of their mentoring meetings. Four trainees and four mentors also completed a follow-up email survey.

SA3	Teacher Mentoring in Further Education (FE) Initial Teacher Education (ITE) in England: the availability, take up and impact of mentor accreditation (2016)	Robinson, C. and Hobson, A.J. (2017), <i>Mentor education and development in the Further Education sector in England</i> , Research report for Gatsby Charitable Foundation, University of Brighton, Education Research Centre.	Mixed method study including secondary analysis of interview transcripts from two studies of mentoring (n=52), internet searches of providers of mentoring qualifications and professional recognition schemes, email communications with key stakeholders (n=6), telephone interviews with providers of mentoring qualifications and accreditation schemes (n=6), online survey of university leads for FE ITE providers (n=8), online survey of mentors in FE Colleges (n=20) in England.
SA4	Teacher mentoring: What can the education system learn from mentoring practice in other sectors? (2015-16)	Hobson, A. J., Castanheira, P., Doyle, K., Csigás, Z. and Clutterbuck, D. (2016), <i>The Mentoring across Professions (MaP) project: What can teacher mentoring learn from international good practice in employee mentoring and coaching?</i> London, Gatsby Charitable Foundation. Available at <a href="http://www.gatsby.org.uk/uploads/education/reports/pdf/mentoring-across-the-professions-final300816.pdf">http://www.gatsby.org.uk/uploads/education/reports/pdf/mentoring-across-the-professions-final300816.pdf</a> (accessed 28 July 2023)	Case studies of 10 mentoring programmes across six countries, incorporating interviews with mentor programme coordinators (MPCs), mentors and mentees (n=32), and documentary analysis.
SA5	Introducing, Evaluating and Embedding ONSIDE Mentoring at [Mill] School (2018-19)	Hobson, A.J., Clements, K. & Káplár-Kodácsy, K. (2019a) <i>Introducing, Evaluating and Embedding ONSIDE Mentoring at [Mill] School: A Research &amp; Development Project</i> . School of Education, University of Brighton.	Mixed methods study including a baseline mentee survey (n=14), focus groups with mentors (n=5) and mentees (n=5), interview with MPC, and final survey with mentees (n=13) and mentors (n=12).



SA6	Introducing, Embedding and Evaluating ONSIDE Mentoring at [Rousseau] Academy Federation (2018-19)	Hobson, A.J., Clements, K. & Káplár-Kodácsy, K. (2019b) <i>[Rousseau] Academy Federation Mentoring for Professional Growth: Research &amp; Development Project, Final Report</i> , School of Education, University of Brighton.	Mixed method case study comprising mentee baseline survey (n=9), mentor and mentee focus groups (n=8), Mentoring Coordinator interview (n=1), direct observation of a mentoring meeting (n=1), end of project mentor and mentee survey (n=13).
SA7	Brighton & Hove Head Teacher ONSIDE Peer Mentoring Pilot (2018-19)	Hobson, A.J., Clements, K. and Káplár-Kodácsy, K. (2019c), <i>Brighton &amp; Hove City Council ONSIDE Head Teacher Peer Mentoring Pilot: Research &amp; Development Project, Final Report</i> , School of Education, University of Brighton.	Mixed method case study comprising mentee baseline survey (n=8), Mentoring Coordinator interview (n=1), two mentor focus groups (total of 9 participants), one mentee focus group (5 participants), direct observation of a mentoring meeting (n=1), end of project mentor (n=8) and mentee (n=10) survey.
SA8	Further Forces (Troop resettlement to education and training careers) Mentoring Programme (2017-21)	Hobson, A.J. & Clements, K. (2020), <i>Further Forces External Mentoring Programme. Interim Report</i> , School of Education, University of Brighton	Mentor (n=7) and mentee (n=7) surveys.

## Effective mentor training, education and development: a qualitative multi-level meta-synthesis

### Appendix 3: Follow-up review sources

Critical Summary	Source	Data sources/Methods
1	Cabezas, V., Pereira, S., Figueroa, C. and Straub, C. (2023), "Teachers' perceptions about the delivery and methodology of a blended learning mentor training course: a case from Chile", <i>International Journal of Mentoring and Coaching in Education</i> , Vol.12 No.2, pp.177–193.	Mixed methods study. Data generated from: surveys of mentors (n=98 for participants in blended learning mode and n=75 for participants in e-learning adaptation due to COVID-19 pandemic); surveys of their mentees (n=20 for mentees whose mentors had participated in the blended learning mode and 54 for mentees whose mentor had participated in the e-learning mode); and post-course interviews (n=11) in three schools with mentors, and mentees and their school leaders.
2	Haqquee, Z., Goff, L., Knorr, K. and Gill, M. B. (2020), "The Impact of Program Structure and Goal Setting on Mentors' Perceptions of Peer Mentorship in Academia", <i>Canadian Journal of Higher Education</i> , Vol.50 No.2, pp.24–38. <a href="https://doi.org/10.47678/cjhe.v50i2.188591">https://doi.org/10.47678/cjhe.v50i2.188591</a>	Surveys of undergraduate peer-mentors' experiences of two mentoring/mentorship programmes within one university (curricular peer-mentoring program n=54; non-curricular peer mentoring program n=49).
3	Matheson, D. W., Rempe, G., Saltis, M. N. and Nowag, A. D. (2020), "Community engagement: mentor beliefs across training and experience", <i>Mentoring &amp; Tutoring: Partnership in Learning</i> , Vol.28 No.1, pp.26–43.	Quantitative study. One-way repeated measures of variance (ANOVA) to test changes in mentors' (n=16) belief pre-training, post-training and at the end of mentoring relationship.
4	Parker, A. K., Zenkov, K. and Glaser, H. (2021), "Preparing school-based teacher educators: Mentor teachers' perceptions of mentoring and mentor training", <i>Peabody Journal of Education</i> , Vol.96 No.1, pp. 65–75.	Thematic analysis of data generated from 32 exemplary mentors – incorporating participant reflections; module artifacts; and participant surveys.
5	Spencer, R., Gowdy, G., Herrera, C., Heubach, J., Slep, A. S. and Cavell, T. A. (2020), "Web-based training for school-based mentors of military-connected youth: A multi-phase development study", <i>Journal of Primary Prevention</i> , Vol.41 No.6, pp. 567–583.	Data generated from two focus groups of military parents (total participants n=13), feedback on the pilot version of the MTED programme from the project's Development team (n=13) and MTED participants (n=11); and brief survey of second cohort MTED participants (n=29).

6	van Ede, A. E., Claessen, R., van Gils, M., van Hoogstraten, C., van den Berg, I. and van Gorp, P. J. M. (2023), "The teacher as coach: An innovative, longitudinal training for (bio)medical educators", <i>Clinical Teacher</i> , Vol.20 No.2, pp.1–9.	Mixed methods study. Data generated from coaches (n=16) via individual end-of-training open text review of their development, and pre- and post-training surveys. Data also generated from surveys of students coached by a non-participating teacher (n= 144) and students coached by a participant in the training (n=85).
7	Whiting, J. R. and Wickham, S. (2020), "Does a training programme improve the perceived confidence and performance of student mentors in their delivery of a widening access to medicine programme?", <i>Widening Participation &amp; Lifelong Learning</i> , Vol.22 No.3, pp. 88–112.	Mixed methods study with self-selected intervention and control groups. Data generated from intervention group in pre- and post- MTED surveys (n=10); one survey of the control group (n=13); and individual, post-MTED semi-structured interviews with intervention group (n=2) and the control group (n=2).

## Effective mentor training, education and development: a qualitative multi-level meta-synthesis

### Appendix 4: Interviews with leaders of effective MTED programmes

MTED programme	Developer	Focus of mentoring	Scale	Associated publications included in meta-synthesis
<b>Mentoring Beginner Teachers (MBT)</b>	Queensland University of Technology and state policy officers	Beginner teachers in their first year of professional practice in schools	4,000 mentors trained between 2014-19	Beutel, D., Crosswell, L., Willis, J., Spooner-Lane, R., Curtis, E. and Churchward, P. (2017), "Preparing teachers to mentor beginning teachers: an Australian case study", <i>International Journal of Mentoring and Coaching in Education</i> , Vol.6 No.3, pp.164–177. <a href="https://doi.org/10.1108/ijmce-04-2017-0030">https://doi.org/10.1108/ijmce-04-2017-0030</a>
<b>ONSIDE mentoring (ONSIDE)</b>	University of Brighton	Beginner and experienced teachers and school leaders depending on context	Used widely across national and international MTED programmes and particularly in England to train mentors of beginner teachers in schools and further education and training	See sources related to Secondary analyses – SA5-8 (Supplementary_information_appendix_2)
<b>Entering mentoring (EM)</b>	University of Wisconsin-Madison Center for the improvement of mentored experiences in research	Higher education research staff typically in post-doctoral or junior faculty roles in science disciplines	Part of a suite of mentoring programmes for mentors that has supported research faculty and staff and in more than 200 universities and laboratories across the United States	House, S. C., Spencer, K. C. and Pfund, C. (2018), "Understanding how diversity training impacts faculty mentors' awareness and behavior", <i>International Journal of Mentoring and Coaching in Education</i> , Vol.7 No.1, pp.72–86. <a href="https://doi.org/10.1108/ijmce-03-2017-0020">https://doi.org/10.1108/ijmce-03-2017-0020</a>  Pfund, C., Branchaw, J. L. and Handelsman, J. (2015b), <i>Entering Mentoring: A Seminar to Train a New Generation of Scientists</i> , 2 <sup>nd</sup> Ed., New York: Macmillan.

				<p>Pfund, C., Spencer, K. C., Asquith, P., House, S. C., Miller, S. and Sorkness, C. A. (2015a), "Building national capacity for research mentor training: An evidence-based approach to training the trainers", <i>CBE—Life Sciences Education</i>, Vol.14 No.2, pp. 1-12. <a href="https://doi.org/10.1187/cbe.14-10-0184">https://doi.org/10.1187/cbe.14-10-0184</a></p> <p>Pfund, C., House, S., Spencer, K., Asquith, P., Carney, P., Masters, K. S., McGee, R., Shanedling, J., Vecchiarelli, S. and Fleming, M. (2013), "A research mentor training curriculum for clinical and translational researchers", <i>Clinical and Translational Science</i>, Vol.6 No.1, pp.26–33. <a href="https://doi.org/10.1111/cts.12009">https://doi.org/10.1111/cts.12009</a></p>
<b>CO-Mentor (CO-M)</b>	University of Colorado	Early career researchers in clinical and translational sciences	500 mentees supported over 10 years	Nearing, K. A., Nuechterlein, B. M., Tan, S., Zerzan, J. T., Libby, A. M. and Austin, G. L. (2020), "Training mentor–mentee pairs to build a robust culture for mentorship and a pipeline of clinical and translational researchers", <i>Academic Medicine</i> , Vol.95 No.5, pp.730–736. <a href="https://doi.org/10.1097/acm.0000000000003152">https://doi.org/10.1097/acm.0000000000003152</a>
<b>Preparing for mentoring (PFM)</b>	innovation, Research and Training (iRT)	Young people mentored by adults	Used across a very wide range of voluntary organisations, and in other contexts, across the United States and globally	<p>Kupersmidt, J. B., Stelter, R. L., Rhodes, J. E. and Stump, K. N. (2017), "Enhancing mentor efficacy and preparedness through web-based pre-match training", <i>Journal of Nonprofit Education and Leadership</i>, Vol.7 No.3, pp.197–216. <a href="https://doi.org/10.18666/jnel-2017-v7-i3-7945">https://doi.org/10.18666/jnel-2017-v7-i3-7945</a></p> <p>Garringer, M., Kupersmidt, J., Rhodes, J., Stelter, R. and Tai, T. (2015), <i>Elements of effective practice for mentoring</i> (4th Ed.), Boston, MA: MENTOR: The National Mentoring Partnership. <a href="https://www.mentoring.org/new-site/wp-content/uploads/2016/01/Final_Elements_Publication_Fourth.pdf">https://www.mentoring.org/new-site/wp-content/uploads/2016/01/Final_Elements_Publication_Fourth.pdf</a></p>

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46

### Author biographies

Bronwen Maxwell is an Emerita Professor of Education at the Sheffield Institute of Education, Sheffield Hallam University and Independent Consultant. She is a mixed methods specialist who has led or co-led over 30 large-scale research and evaluation projects for national and regional government departments and agencies, grant awarding bodies and third sector organisations. Her research and publications focus on implementing research-informed practices in schools and teacher professional learning, development and well-being. In addition to researching mentoring, she has led a Master's in Education programme and developed a Post-graduate Certificate for mentors in the Further Education sector.

*Kinga Káplár-Kodácsy* is Assistant Professor at the Eötvös Loránd University (Hungary) and former Fulbright researcher at the University of Florida (USA) and former visiting research fellow at the University of Brighton (UK). She is Associate Board Member at the International Mentoring Association. She is an experienced secondary school teacher and qualified teacher mentor. Her current research projects are dealing with understanding the roles and concepts of sustainable mentoring in higher education, exploring innovative mentoring practices in faculty development, and finding ways for improving teaching and learning in higher education.

*Andrew J. Hobson* is Professor of Teacher Learning and Development at the University of Brighton, UK, and Editor of the International Journal of Mentoring and Coaching in Education (Emerald Publishing). He has published extensively on mentoring in education, and developed the concept of "judgementoring" and the ONSIDE Mentoring framework. He was a member of the expert subpanel for Education in the 2021 Research Excellence Framework (REF), the UK's system for assessing the quality of research conducted in universities.

*Eleanor Hotham* is a White Rose Doctoral Training Partnership PhD student in the Sheffield Institute of Education at Sheffield Hallam University, with funding support provided by the ESRC and Sheffield Hallam University. Her research interests relate to professional learning and curriculum design. She is a trained teacher, currently teaching Masters in Education modules, and having worked within the primary phase and as a subject leader prior to her doctoral studies.