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Abstract
This research focused on the benefits and challenges for second year Education Studies undergraduate students acting as near-peer mentors for year 12 students (aged 16-17). Near-peer mentoring often involves postgraduate students working with new undergraduates and is more common during Science Technology Engineering and Maths (STEM) programmes. There is little research available, outside of STEM, about how near-peer mentors might influence the aspirations of students to access HE, or of the impact on undergraduate mentors themselves.

The student near-peer mentors were part of the Research Higher project in an area of England with unexplained low participation rates in HE. The project involved circa 200 students from local schools in a programme of weekly events where they designed and conducted their own research. Second year Education Studies undergraduate students supported two cohorts of year 12 students during their on-campus seminar activities. The findings draw on thematic analysis of undergraduate student interviews at the end of the project. They indicate that near-peer mentoring has unexpected benefits for undergraduate Education Studies students including meta-cognition about their own learning and confidence in working with older students. Recommendations for future near-peer mentoring programmes are proposed based on student feedback.

Key Words
Mentoring; near-peer; higher education; widening participation; research; undergraduate.

Introduction
In areas of England where nationally low participation rates in higher education (HE) and discrepancies between rates of qualification at the age of 18 and enrolment in HE were identified, the National Collaborative Outreach Programme (NCOP), funded university partnerships to deliver HE outreach programmes to schools and colleges between 2017 and 2019 (Office For Students, 2019). The aims of the NCOP were to raise awareness and participation in HE from under-represented groups as well as to provide a research base of successful collaborative outreach methods (Office for Students, 2019). This research focused on one strand of work undertaken by the NCOP regional initiative in the East Midlands of England in 2018-19. The Research Higher project involved year 12 students (aged 16-17) from local schools and colleges in a programme of weekly events where they designed and conducted their own research focused on HE. These students were targeted as, in year 12, students in England become eligible to apply to university undergraduate programmes. Over 11 weeks, the students were introduced to research skills through university lectures, seminars, and school-based tasks. Lectures were provided by university tutors whilst seminars were led by five PhD-student leaders, using set materials generated by an academic team. As part of the Research Higher project, second year undergraduates from a range of Education Studies combined honours programmes were recruited to support the year 12 participants during their on-campus seminar activities. Whilst near-peer

mentoring can be used in a variety of different ways in university contexts and involve students at different stages, a usefully broad definition is offered by Akinla, Hagan and Atiomo (2018: 2):

> A near-peer mentoring relationship may be defined as one in which a more senior learner (a year or more above) provides guidance and support to a new junior learner to enable the new student to navigate his or her education.

Near peer mentoring is often applied to postgraduates, or more established undergraduates supporting students new to university (Chan and Luo, 2020; Marshall et al., 2021; Seery et al., 2021). In this study, the near-peer mentor role was re-conceptualised so that undergraduates could offer research support and insight into university life to year 12s who were yet to apply to university. Rather than the common aims of supporting retention and progression on undergraduate programmes (Marshall et al., 2021), in this study near-peer mentoring aimed to raise year 12 students' aspirations regarding attending university.

The purpose of this study was to investigate participating near-peer mentors' perceptions of Research Higher, their experiences in their role as a 'senior learner' (Akinla, Hagan and Atiomo 2018: 2) and their ideas for future working. The academic research project team held some underpinning hypotheses for the project which stemmed from a broadly sociocultural perspective. We envisaged that the near-peer mentors would take on the role of 'more capable other' (Vygotsky, 1978: 86) and be able to mediate new understanding about research in their interactions with the year 12 students. We hoped that through this experience the second-year undergraduate students would develop further skills, knowledge, and confidence about educational research design. We also anticipated that engaging collaboratively with year 12 students, often from the same local areas and schools, would enable the year 12s to ask questions about life at university and ultimately feel that university might be accessible to them.

Near-peer mentors in HE

Near-peer mentoring is a well-documented feature of some university programmes particularly in Science, Technology, Engineering and Maths (STEM) disciplines where more-experienced undergraduates or postgraduates work with new graduates to support subject knowledge and research skills (Akinla, Hagan and Atiomo, 2018; Singh, Singh and Dhaliwal, 2014; Williams and Fowler, 2014). In a range of disciplines, near-peer mentoring in HE may be considered to serve three main purposes: emotional support, career and professional development opportunities and role modelling of academic practice (Jacobi, 1991: 510). Near-peer mentoring is also used to supporting academic achievement and retention on undergraduate programmes (Marshall et al., 2021). One key documented benefit is that new students may be more willing to approach near-peer mentors than academic staff with any concerns or questions. This was the case for first year medical students in Delhi, who engaged more willingly with near-peer mentors than their allocated staff mentors (Singh, Singh and Dhaliwal, 2014). In this instance, a social and academic role was assigned to the near-peer mentors as they explained the intricacies of the medical degree curriculum and offered support with relocation issues, stress about academic expectations and the new students' separation from their families.

Near-peer mentoring is seen to be of benefit to new undergraduates as the more experienced student mentors have been through the same process of familiarisation with the university environment (Singh, Singh and Dhaliwal 2014; Williams and Fowler, 2014). Williams and Fowler (2014) suggest these mentors create a relaxed environment for their mentees, as there is less distance between their academic development than with an academic member of staff. Near-peer mentors may also be able to predict difficulties and explain complex concepts that may be concerning mentees (Williams and Fowler, 2014). Similarly, Collier (2017: 10) claims that near-peer mentors understand the role of new university students and that the support of near-peer mentors can result in higher grades, student

retention, better adjustment to university life and increased student satisfaction with an institution. This assertion was supported by similar findings from multiple case-studies of near-peer mentoring in HE in the United Kingdom (Andrews and Clark, 2011). A study of over 300 students at six universities indicated that near-peer mentoring supported new university students to make the social transition to university and gain a sense of belonging, whilst also supporting their academic transition and 'learning how to learn' at a higher level (Andrews and Clark, 2011).

Despite the acknowledged potential benefits of near-peer mentoring, the role of near-peer mentoring is sometimes difficult to put into practice. Previous studies of near-peer mentoring highlight students' difficulties with understanding what is expected of their role and how best to support their mentees. In research with postgraduate students mentoring undergraduate researchers, understanding the role of the mentor and forming effective relationships were highlighted as the most important influences on success (Kuh, 2008; Lim et al., 2015; Palmer et al., 2015). Challenges arose from the relevance of, and access to training as well as issues communicating with and building relationships with mentees (Andrews and Clark, 2011). Near-peer mentors needed to be proactive about engaging with their mentees particularly when mentees were managing the intensive time demands of undergraduate programmes such as medicine (Singh, Singh and Dhaliwal, 2014). The mentors also needed support to conceptualise their role (Wallin and Adawi, 2018) so they were clear about their purpose and what mentees would need.

There is generally less literature about university undergraduates acting as near-peer mentors for school students. In the USA, one model involved undergraduate research students in science subjects working on a teaching summer internship for high school students (Tenenbaum et al., 2014). Findings indicated that these undergraduate near-peer mentors were viewed as approachable, easy to understand and able to make learning accessible and fun. The school students reported that their near-peer mentors were better able to explain things than their teachers, as they had recently studied at the same level (Tenenbaum et al., 2014: 383). Similarly, when university students led interactive maths shows for disadvantaged high school students there was an increase in their reported engagement and motivation for maths learning (Wilson and Grigorian, 2019). Overall, the literature agrees that there are short-term and long-term advantages of near-peer mentoring. In the short term, the mentee may be supported to adapt to the academic requirements of HE. In the long term, the mentee may be more likely to participate in mentoring in the future or to take on some sort of teaching role (Andrews and Clark, 2011).

Following work with undergraduate students acting as near-peer mentors for disadvantaged students in STEM disciplines, Tenenbaum et al. (2014) concluded that there were benefits for undergraduate research mentors as well as their mentees. They indicated that near-peer mentoring experience for undergraduates supported their entry to a STEM career because of the confidence and skills that were developed. Furthermore, near-peer mentors may also gain a feeling of satisfaction from helping others and putting teaching skills into practice (Andrews and Clark, 2011; Tenenbaum et al., 2014). They may even develop greater empathy, communication, and leadership skills (Chan and Luo, 2020). However, there is limited recent research available about mentoring relationships between university undergraduates and school students in the year group where they may choose to apply to university. There also seems to be a lack of previous research of near-peer mentoring in the discipline of Education. This small-scale study therefore set out to answer the question: What were the perspectives of undergraduate Education Students on their experience of working with year 12 students as near-peer mentors in the Research Higher project?

Research Higher project outline
The project was led by a host university that was different from the one where the undergraduates were enrolled. On campus events took place at the host university with one session at the

undergraduates' home institution. The first project ran from October 2018 to February 2019 with approximately 50 year 12s. The second ran from January 2019 to May 2019 with approximately 150 students. Each seminar group was led by a PhD student based at the host university. The PhD students and near-peer mentors followed weekly seminar materials produced by the academic team. They also attended a lecture on an element of research design with the year 12 students and their teachers on campus preceding the seminar. For the year 12s, there were school and web-based activities between on-campus sessions.

Education Studies undergraduate near-peer mentors were recruited as they began the academic year 2018-19. Second year students were approached as third years had indicated that workload pressures in their final year meant that they did not want to be involved. The limitation of this was that the second years had not yet completed any research specific modules on their undergraduate programme. However, the academic team felt that these second year near-peer mentors' exposure to research through their completed modules and reading would still enable them to support the year 12 students.

Before the project commenced, the participants were invited to a briefing meeting with the project co-ordinator, PhD students and academics from their university who were part of Research Higher. The aims and organisation of the project and initial session plans were shared.

Research design
Focus
This study focused on the experience of the Education Studies undergraduate students who took the role of near-peer mentors. The year 12 students were already involved in research focus groups as part of the NCOP evaluation of the Research Higher project and so did not have the capacity for additional participation in interviews.

Methodology and methods
The study was underpinned by an interpretive perspective which presumes that individuals hold separate views of the world shaped through their experiences and informed by their values and goals (Morehouse, 2012). Therefore, the research design aimed to explore the participants' individual perceptions of their near-peer mentoring role. The research team considered developing a multi-method case-study approach to provide additional understanding of the mentors' experience (Yin, 2018) including observations of the students during their near peer mentoring activity as a stimulus for follow up interviews. We also discussed asking the near-peer mentors to keep a written reflection on their experiences. However, observation was rejected because of concerns that observing near-peer mentor interactions with young people would influence the experience of mentoring for both mentors and mentees (Oswald, Sherratt and Smith, 2014). We also agreed that students with a busy workload were unlikely to complete written reflections. Instead, semi-structured interviews were chosen as they offered an in-depth qualitative way to explore the participants' own perspectives and collect information about their experiences as near-peer mentors (Cohen, Manion and Morrison, 2017). Allowing flexibility in prompts and follow up questions enabled the interviewer to probe students' responses and gather specific examples.

Participants were interviewed at the end of the second phase of Research Higher in Spring 2019. Interviews took place on campus, at a time that was convenient to the near-peer mentors, and were digitally recorded and transcribed. The near-peer mentors were interviewed individually in the hope that they would feel comfortable to be honest about any challenges they had experienced and to avoid peer-influence from their fellow undergraduates. A group interview might have created a consensus response and prevented exploration of different perspectives (Cohen, Manion and

Morrison, 2017). The interview questions centred on student motivations to take on the role of near-peer mentor, perceived benefits, and challenges of the experience (see Appendix A).

Sample
All the near-peer mentors were invited to participate in the research study. They were informed about the project through their virtual notice board and a verbal announcement following a lecture. Of the six student research participants, four were female and two were male. Those who volunteered could be described as a convenience sample, meaning that their perspectives are not necessarily generalisable beyond this study (Cohen, Manion and Morrison, 2018). However, as all students who acted as near-peer mentors volunteered, this sample potentially offered a representative perspective on the role within this project.

Limitations
This small-scale study is limited in several ways because of the small sample and limited data on which the findings draw. The findings only offer an insight into near-peer mentoring from the near-peer mentors' own perspectives as no data were collected from other members of the project. There was only one interview conducted with each near-peer mentor and no other methods were used to collect additional data that could have offered triangulation of the reported findings. One of the participants also had less experience of near-peer mentoring as they only participated in one round of Research Higher. However, despite these limitations there was agreement within the sample about many findings presented and these insights offer areas for consideration in future work with near-peer mentors.

Ethics
Ethical approval for the research was gathered in line with the university ethics policy. In the information letter, email invitation and verbal introduction, students were reassured that there was no expectation to take part and that there would be no influence on their work at university if they chose not to take part or withdrew from the data collection. The right to withdraw during the interview, or to withdraw their data from the study after the interview through telephone or email communication was made clear. The near-peer mentors' anonymity was maintained using pseudonyms and by excluding any identifying personal details in writing up the research.

Analysis
The near-peer mentor interview data were analysed using a qualitative thematic approach (Miles, Huberman and Saldana, 2014). Broad categories of analysis were initially devised from the literature review and research question. These included: previous mentoring experiences, near-peer mentor role, perceived benefits for the near-peer mentor, perceived benefits for the mentees and challenges experienced. Each interview was categorised using this approach, then the team met to check for consistency of coding and draw out common themes emerging. Care was taken to compare sub-themes across the data to establish patterns and note any outlying perspectives so that the full range of views was included in the findings. The findings reported here utilise a small number of quotes to illustrate a theme that was found to be consistent across the data, unless otherwise indicated.

Findings
Previous experience and reasons for volunteering
The near-peer mentors' previous experience of research was quite limited and often in very different contexts from that of this project. Two had experience from Psychology research projects conducted at school:

> In A Level Psychology I had to carry out some small studies and some research projects within school with some of the younger years

(Tom).

> A Psychology project, with me and my friends, about stress in schools
>
> (Beth).

Another had conducted research in terms of testing and evaluating equipment in the workplace during a previous career:

> I've done research before but not in this style … mine was in weapon development where we didn't much look at theories or do research as in questioning people, ours was more practically based
>
> (Rebecca).

Only one mentioned previous experience of mentoring:

> I used to do mentoring when I was at school in year 9 with year 7s
>
> (Tom).

The near-peer mentors' experience with children and young people was also diverse. They all had some classroom experiences of supporting students' learning during the first year of their degree as this was a mandatory part of their qualification. Two indicated that they also volunteered with children and young people in organisations outside of university, specifically boys' brigade and army cadets. However, most of the group had limited experience of working with students beyond the primary age phase (5-11) and this was their main reason for volunteering:

> It's extra experience because I've worked with nursery, I've worked with primary, but I've never really worked in that format and in that setting with year 12s before or in a university setting
>
> (Tom).

> I've quite often worked with lots of younger kids' groups and I thought I wanted to develop working with some older groups
>
> (Kieran).

One of the near-peer mentors emphasised that they wanted to support and motivate students who might be considering going to university:

> I believe in giving back as much as I can … to [help them] sometimes see what is out there and what they are capable of doing
>
> (Rebecca).

Most of the participants did not mention this as an initial incentive for their role but, after completing the project, they were clear that helping the year 12 students and perhaps raising their aspirations to attend university was important (see benefits for near-peer mentors section).

The near-peer mentors mostly reported that they were secondarily motivated to take part because they felt that the project would enhance relevant research skills for their dissertations:

> I knew that I was doing research this year and next year and I wanted to know more about how to do it
>
> (Claire).

> Next year we've got to do our own research so I didn't think it would hurt!
>
> (Lizzie).

Two mentioned the monetary incentive £100 bursary given to take part and two indicated that the free lunch provided was welcomed, perhaps suggesting that small incentives can encourage students to get involved in near-peer mentoring, especially in a community where students themselves come from disadvantaged backgrounds:

> We all appreciate the free food
>
> (Beth).
>
> It was nice to have a free lunch
>
> (Lizzie).

Interviewer: Why did you volunteer to be part of research higher?

> Probably the 100 pounds
>
> (Claire).

The role of the near-peer mentor

The near-peer mentors reported taking on the role of a teaching assistant in the on-campus seminar sessions. Some of the year 12 students wanted clarification about whether they were completing given tasks correctly and the near-peer mentors worked with small groups to help. They explained their role as making sure that the year 12 students understood the activities, keeping them on task and supporting discussion:

> I feel like the role was like a TA for the Education Studies students
>
> (Beth).
>
> Some of them needed a few questions brushing up on the answers because they didn't understand a little bit
>
> (Kieran).
>
> So sometimes it was just so that they could have someone to keep them on track of their work
>
> (Kieran).
>
> I mainly led the questions because they were still a wee bit shy
>
> (Beth).

The near-peer mentors reported that their role also included providing a sounding board for ideas about research into HE and help with designing interviews and questionnaires, to check if they were viable:

> I think the main questions were whether the wording was right and what types of questions or if they needed help deciding what to do. They were asking us how they could focus their questions on that specific age group so that way we brought quite a bit of experience of university into it
>
> (Rebecca).

The year 12 students needed unfamiliar wording to be clarified in sessions, needing basic explanations and encouragement:

> You knew when to go over near them because you could tell by the quietness of the group when they were like 'What does that word mean?'
>
> (Beth).

The fact that the year 12 students' research had to be focused on community perceptions of HE created an opportunity for the year 12s to ask about how to target research at university students and encouraged dialogue about university in general. The near-peer mentors were 'more capable' and confident to share their experience:

> They wanted to know about the social life and the pressure compared to A level. They were asking if it was harder or what kind of work you have to do assignment wise

(Tom).

I remember explaining the finance system to one of the people who didn't understand it

(Lizzie).

They were trying to work out what they were going to do about university, and I knew what university was like so …

(Kieran).

I think my role as well as being an assistant just helping things flow, giving them advice about university I thought was very beneficial to me and them. Because some of them have no idea what it was like and they want to know about accommodation and the types of people you meet

(Tom).

They asked me what it's like with societies and different things about being at university and what I did and what the nightlife was like

(Beth).

It was interesting to note that the near-peer mentors seemed most confident in offering social support and managing tasks. It appeared that they wanted to influence the year 12 students to think positively about university and felt that their role as mentors could contribute to this:

From my own experience it can turn somebody around that is headed in the wrong direction and sometimes help them to see what is out there and what they are capable of

(Rebecca).

Challenges for the near-peer mentors

Four of the six near-peer mentor interviewed, admitted that they were worried about behaviour management before beginning their role:

I thought they were all going to be horrible and make fun of me

(Claire).

Not really knowing if I could relate to them and help them to understand what was expected of them

(Kieran).

Just the dynamics of working with year 12 pupils

(Beth).

Getting over that first fear of going up to someone when you have no idea who they are and are normally taller than you

(Lizzie).

Participants reported that these concerns were, to some extent realised, as they experienced small challenges during group work. They indicated that it was hard to keep the year 12 students focused and talking about the chosen topic:

Behaviour management, in terms of just keeping them on task and making sure they're taking things seriously, was a bit challenging to start with

(Tom).

I do get the feeling that one or two of the students coming from schools were doing it to get out of class

(Rebecca).

One participant reported a more serious behaviour management issue which was dealt with effectively and swiftly by the PhD student leading their group and the project leader:

> The PhD student I was with spotted it immediately and informed the project leader … the school then said they can't come anymore
>
> (Beth).

Managing mostly low-level disruptive behaviour seemed to be a genuine challenge for the near-peer mentors, which may have been related to their limited experience of working with this age group. The structure provided by PhD students leading the groups and a clear plan for referring inappropriate behaviour appeared to offer some support with this.

Interestingly, Kieran, a near-peer mentor also brought up a concern over managing his own behaviour. Due to a familiarity with socialising with year 12s he explained that his interaction was sometimes in 'social mode instead of, an I'm in charge, authority'. This highlights the potential challenge of negotiating the specific Research Higher near-peer mentoring role as the undergraduates were expected to offer both teaching and informal discussion with the year 12s.

Four of the six near-peer mentors interviewed also mentioned that their own lack of knowledge created a problem supporting the mentees indicating that they began the role 'not knowing any more than they did' (Tom). Some near-peer mentors explained that they had very limited previous knowledge to draw on because they had not yet completed any research focused modules:

> I think because we're second years and we hadn't actually touched on research at that point in time, we came in kind of blind to it … and some of the terminology they use we had heard of but didn't necessarily understand properly ourselves which made it a little difficult to advise
>
> (Rebecca).

However, attending the Research Higher lectures with the year 12s and using the task materials helped the near-peer mentors to overcome this difficulty and learn alongside the year 12s:

> I knew what types of questions they were going to ask, because I went to the lecture(Claire).
> Going to the lectures was useful because of knowing what was just fresh in their heads(Beth).
> I went online and I got all the resources, and I went through everything for the first couple of weeks… personally I felt prepared
>
> (Tom).

Other responses from the near-peer mentors also suggest that the undergraduates had a greater understanding of educational research than they first recognised, even without having completed any research focused modules (see Benefits for near-peer mentors).

Despite some of the near-peer mentors' positive comments about the lectures and project materials, three of the six near-peer mentors mentioned that there was limited access to the materials that the year 12 students were working from. They reported that this made it difficult to understand their roles. With only some resources given, they felt unclear about the objectives and activities for year 12 students because they 'didn't get to see any of the online stuff' (Claire).

> I feel like I could have known more about the research project that they had to do before
>
> (Lizzie).
> For the first few sessions we were coming in blind
>
> (Rebecca).

Sometimes when they attended seminars, they were not aware of the stage the year 12 students had reached in the weeks when the project was conducted through school-based activities:

> We didn't know what happened between the weeks … so without that I didn't know what they had already done
>
> (Lizzie).

> We actually had no idea what they had done or the stage they were at
>
> (Rebecca).

The participants were also unaware of follow-up activities, so they were unable to answer some questions from students about what they would be doing in later weeks. Some near-peer mentors wanted clearer communication about the other activities within the project from a 'central point of communication' (Rebecca). As some members of the research team were also involved in organising the project, we agree that these concerns were entirely valid. They arose from the tight-timescale and management of the project by the host university rather than the university where the second-year undergraduates studied.

Benefits for near-peer mentors

The students reported that the experience had helped them to become more confident in both their academic abilities and their professional skills as prospective teachers. They talked about noticing pupil progress and feeling 'like you helped' (Tom). One student summarised the opportunity that this experience offered to reflect on their own learning:

> There's a lot of people on our course that still lack confidence in their own ability, and I think within the mentoring programme you actually confirm that you have made progress
>
> (Lizzie).

They described learning about research through their involvement in the project, especially because when the project took place at the beginning of the second year their focus on research had been limited:

> Looking at the types of interviews and questions that we're exploring at the moment in my module, and I understand how to apply them to different questions as well
>
> (Tom).

> You could see that we were making a difference so personally I got something out of it and also … when having lectures, some of those were really interesting because they were things that we haven't already covered as part of our course so they were giving it a pre-empt in what I'm coming up to in my dissertation … so I benefited from those as well
>
> (Rebecca).

They also highlighted that their understanding of the research process had developed through the meta-cognition needed to support the year 12 students:

> It makes you re-evaluate what you've learnt so you can put it in, maybe more simplistic terms so other people can understand it and that way it helps you understand better   (Claire).
> I didn't realise I knew as much as I knew
>
> (Lizzie).

> … actually I'm better prepared from this than I thought
>
> (Kieran).

Overall, the near-peer mentors gave few very specific examples about how the experience had shaped their understanding of the research process. However, one clear benefit was an increased feeling of confidence and an awareness of their own academic journey. This was particularly significant because the near-peer mentors came from low participation backgrounds in HE themselves. They were, in the most part, local to the region and had often attended the schools involved in the project. They adopted

the role of more capable others but could not articulate what academic knowledge and skills they drew upon during the project.

Despite the challenges, the near-peer mentors agreed that their involvement in Research Higher was a positive experience. This was evidenced by their willingness to be involved in work with the two cohorts over two semesters. They were unanimous in recommending it to future students and said that more undergraduate students should have been involved:

> It would show them they've progressed so build people's confidence
>
> (Rebecca).
>
> Its enjoyable and it gives you the opportunity to see what they're like and communicate with them and … an understanding without needing to be the main leader
>
> (Kieran).
>
> I know more about how to carry out research and I'm better working with that age group now
>
> (Claire).

Discussion

Our initial expectations of the research relied on a focus on individuals and a belief that the near-peer mentors would create a Zone of Proximal Development (Vygotsky 1978: 86) in which they could share and foster knowledge about research practices and university expectations with the year 12s. In hindsight, this was a simplistic perspective which did not consider the more complex role-shifting required of the participants or the influence of the wider environment. The near-peer mentors did not view themselves as expert enough to support with research design. Furthermore, they were asked to inhabit a complex hybrid role of expert teacher and friendly supporter. Similarly, the year 12s were expected to treat the near-peer mentors with respect but also to engage with them in a more informal way that enabled them to find out about university life. This role-shifting was a challenge for all the participants. The near-peer mentors were also expected to work in a quasi-partnership with the academics on the project. However, although there were shared preparation meetings, often the undergraduates were unclear about expectations and seemingly not confident enough about their new status to ask for help.

Considering the challenges experienced by the near-peer mentors provoked the research team to review the way they had conceptualised the study. We had attempted to explore the near-peer mentors' perspectives but the issues arising from communication, resource sharing and adopting a new role, highlighted that viewing the near-peer mentor role from an individual stance was insufficient. The findings suggest that the experience of near-peer mentoring was influenced by the rules, roles, community, and resources created for this project work. The influence of these elements on work-based learning can be explored using third generation Cultural Historical Activity Theory (CHAT) (Engeström, 2001, 2008, 2011) and were applied by Lofthouse and Leat (2013) to examine the challenges of peer coaching between teachers in school. The research team adopted this theoretical perspective to highlight some of the issues at work and identify ways forward.

As explained by CHAT, bringing together undergraduates and year 12 students offered the opportunity for boundary working (Engeström, 1987; Akkerman and Bakker, 2011). This is when individual roles involve crossing between two or more organisations with different cultures and goals. Individuals from these organisations can collaborate to create new ways of communicating and working together (Engeström, 1987; Akkerman and Bakker, 2011). The use of near-peer mentoring between undergraduates and year 12 students in England is a 'non-dominant, innovative activity' (Sannino, 2008: 321) which has the potential to lead to a transition between roles for the undergraduate students and associated personal development as a result. However, taking time to discuss roles and communication at the boundaries early in the project could have improved ways of working together

and therefore supported this process. New resources, such as guidance and lesson plans, created with and for the near-peer mentors might have improved their experience of boundary crossing and the effectiveness of their work with the year 12 students.

In this case, the undergraduate students' role was changed from student to mentor but the resources they used were not amended to reflect their needs. In CHAT terms, this was a secondary contradiction where one element of an activity system changed and others did not (Engeström, 2008, 2011; Johannsdottir, 2010). Some of these challenges may have been a result of our focus on this experience as a vehicle for undergraduates' research development rather than the greater professional and personal opportunities it offered. Such professional and personal opportunities were clearly more important to the students . If a clearer objective or collective motivation focused on near-peer mentor development had been established from the start, training, communication, and resources may have been more constructive. Whilst opportunities for dialogue between mentors and mentees, as well as mentors and academics, outside of the everyday workings of the programme might have made the experience more inclusive. This small-scale research tentatively supports Chan and Luo's (2020) assertion that near peer mentors may not need to be selected based on ideal dispositions. The self-selecting volunteers appeared to develop their compassion, confidence, and communication through the experience of mentoring and offer valuable support to their mentees, whatever their starting point. Although this personal development clearly happened for near-peer mentors during the project, the process could have been much more effectively supported.

Conclusion

From this very small-scale study, near-peer mentoring between Education Studies undergraduates and year 12 students seems to offer an opportunity to support the university widening participation agenda but also to provide new experiences and learning for the near-peer mentors. However, to do so with the maximum benefit for near-peer mentors and mentees requires thoughtful planning of briefing and training of near-peer mentors which includes some careful analysis of the mentor role. Any future programme of research mentoring activities would be developed with academic staff and the near-peer mentors working as equal partners in the process with an ongoing central system of shared documents and communication. Relationships with the year 12 mentees could also be more easily developed and meaningful through designing a programme that involved weekly or fortnightly contact over a full academic year. Additional information about university life and different university programmes at the universities involved in the project would also be included in the mentor-mentee discussions, as this seemed to be a missed opportunity. As intended, the near-peer mentor role gave simple encouragement, clarification and support to the year 12 students' group seminars and allowed them a regular opportunity to discuss university experiences with a familiar near-peer. However, perhaps most powerfully, the real-life connections of the near-peer mentors and their mentees helped to develop the confidence of these first-generation university attendees. Involvement in the project enabled the undergraduate near-peer mentors to notice their own academic progress and begin to assume the role of 'more capable others'.

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Appendix 1. Interview Questions

1. So, first of all, why did you volunteer to be part of Research Higher?
   Prompt: explain more e.g. is this related to your professional/ career ambitions/ previous experience/ something else

2. Did you have any previous experiences of educational research to draw on?
   Prompt: What had you done? Please explain

3. What were you most concerned about at the beginning of the project?
   Prompt: why?

4. When you started the role how well prepared did you feel?
   Prompt: How did you find our preparation meeting/ did you have a chance to view plans/ activities before each session?

5. Do you think there's anything else we could have done to help you prepare to be part of the project?

6. When the students talked about research and the activities in the sessions did you know how to help them?

7. What did the year 12s really want from you? What did they ask you about? What were they interested in?
   Prompt: What did you do to support them, give some examples.

8. What do you think went well in the project, what do you think the best bits were?

9. What did you find the most difficult?

10. Was there anything else you found a challenge?
    Prompt: What did you do about that/ where did you get support?

11. What do you think you gained by being part of the project, did you get anything out of it?

12. Do you think you learned anything about research?

13. Would you recommend it to other students to do?

14. What advice would you give to anybody who was going to be a student research mentor?
    Prompt: is there anything you think they need to do to make a success of it?

15. Is there anything else you think you would like to tell me about the project that you think I should know about how we should do it in the future?