



Evaluation of the NHS R&D NW InRes: Introduction to Research online pilot programme



September 2025

Executive Summary

This report presents the evaluation of the 'InRes: Introduction to Research' online pilot programme. Developed by NHS Research and Development North West (NHS R&D NW) in collaboration with the University of Liverpool (UoL), InRes was designed as an online alternative to the Early Career Researcher Development Pathway (ECRDP), in alignment with the health system's wider digital agenda.

The programme supported nurses, midwives and allied health professionals to explore their potential as researchers, build core skills and competencies, and begin engaging with future leadership roles. Learning outcomes centred on critical evaluation of research, leadership, reflective practice, networking, and early career research skills, and were aligned with the University of Liverpool's Level 7 requirements, although not formally accredited. Sixteen practitioners took part.

The InRes pilot ran from October 2024 to July 2025, comprising 10 online workshops structured around the Vitae Researcher Development Framework (RDF), 8 group coaching sessions, one-to-one mentoring, and a flipped learning model in which participants engaged with pre-learning materials in preparation for the online sessions. At the end of the programme, participants submitted a reflective portfolio assignment and presented their 5-year career plan at an online celebration event.

The evaluation examined how effectively the programme fostered participant engagement, the wider enablers and barriers to engagement, and the extent to which it achieved its stated aims and learning outcomes. It also provided timely feedback to support ongoing development and refinement of the pilot and to generate practical insights and recommendations for future iterations.

To this end, the evaluation adopted a primarily formative and developmental design, employing a mixed-methods approach drawing on surveys, interviews, and documentary analysis at different stages of the pilot. A programme-specific theory of change and the Online Engagement Framework (Redmond et al., 2018) provided the basis for framing questions, guiding data collection, and interpreting how programme design supported participant engagement, whilst the Vitae RDF was used to structure analysis of outcomes.

The programme was largely successful in fostering participants' emotional engagement. A strong sense of psychological safety was established early and deepened over time, enabling participants to feel supported, take part in discussions, and gradually build confidence to share more openly in larger group settings. Coaching groups were particularly effective in reinforcing this safety, combining social connection with emotional support, whilst inclusive facilitation and activities such as MBTI further encouraged openness and trust. The online format also offered some participants a safe and flexible environment, although for those joining sessions from their workplace, the lack of a confidential space occasionally constrained their ability to contribute.

Managing energy levels emerged as a challenge, with afternoon fatigue noted in the early workshops, but this did not undermine overall motivation. Interactive and creative activities helped re-energise participants and sustain focus, and full-day sessions were valued for supporting immersion, with suggestions of half-day formats likely to reduce fatigue, but risk reducing the depth of engagement. By the end of the programme, participants reported high levels of enjoyment, satisfaction and enthusiasm, reflecting a supportive and motivating environment that underpinned their engagement.

The programme was generally successful in fostering behavioural engagement, though experiences varied across its different elements. Engagement with pre-learning materials was mixed. Whilst most participants valued the pre-learning as preparation for meaningful workshop participation, completion was uneven and influenced by timing, workload pressures, and the volume or complexity of content. Materials were most effective when clearly relevant, accessible in format, and released in good time, with engagement strongest when preparatory tasks were essential for workshop activities.

Participation in the online sessions was strong overall, with high attendance, adherence to ground rules, and positive responses to varied interactive activities that supported active learning and maintained interest. Creative methods enhanced behavioural engagement for many by making sessions more enjoyable and stimulating, though a minority found some activities uncomfortable and/or not clearly relevant to their learning. Assignment completion provided further evidence of sustained engagement, with most participants finding them useful for consolidating learning and extending their development and all but two participants submitting their work. Overall, behavioural engagement was strongest when tasks felt purposeful, formats were varied, and the rationale for activities was clear.

The programme fostered collaborative engagement through a range of mechanisms, though effectiveness varied across settings. Small-group discussions were consistently valued as inclusive spaces that encouraged contribution and interaction, with many participants identifying them as one of the most useful aspects of the programme. Their success, however, depended on group dynamics, preparation, and clear structure, with uneven participation and limited facilitator input sometimes constraining the depth of discussion. Whole-group discussions were less consistently engaging. Whilst these discussions offered opportunities to share perspectives and build peer learning, some participants were hesitant to contribute, reflecting personal anxieties and initial unfamiliarity. These forums worked best when carefully structured and inclusively facilitated, with alternative ways to contribute such as through using the chat function, although this needed to be well-integrated to avoid distraction or marginalisation.

Coaching emerged as one of the programme's strongest vehicles for engagement, offering protected and supportive spaces that fostered reflection, confidence, peer learning, and meaningful relationships. Mentoring was also valued, but experiences were more uneven. Whilst some participants benefited significantly from guidance on career planning, confidence, and access to networks through their mentors, others struggled to establish effective relationships, citing issues such as mentor availability, unclear expectations, or lack of confidence in seeking support. Clearer guidance and earlier support were identified as important for strengthening mentoring in future iterations.

Social engagement developed gradually over the course of the programme, supported by early induction activities and strengthened through small-group discussions and, in particular, the coaching groups, which created the strongest sense of community. Participants explained that the structured yet supportive nature of the coaching groups encouraged openness, which in turn fostered trust, deeper connections, and collaborative learning. This dynamic helped make coaching one of the most effective spaces for building both social and collaborative engagement in the programme, with many expecting relationships to extend beyond the programme. However, outside of the coaching groups, the online format limited the informal "in-between" moments that often build rapport in face-to-face settings, meaning relationships generally took longer to develop. Attempts to create informal online spaces, such as a Canvas "common room" and a WhatsApp group, saw little uptake, suggesting that such platforms need clear purpose, early introduction, and active facilitation if they are to succeed. Incorporating face-to-face elements, particularly early in the programme, is also likely to accelerate trust-building and community formation.

Cognitive engagement developed unevenly across the programme. Early on, some participants were unsure how workshops related to the programme's overarching aims or the Vitae RDF, which at times made it harder to integrate ideas across sessions. By the end, all participants reported a clear understanding of the programme's purpose, although links to the RDF remained less evident. Alignment with individual aims and expectations was also mixed. Many found the content relevant and came to view personal development and self-awareness as integral to becoming a researcher, whilst a minority continued to want greater emphasis on research methods and critical appraisal. These differences often reflected prior experience, with some seeking more advanced, research-focused challenge and others gaining greater value from the reflective and developmental elements.

Reflection, however, was consistently valued for consolidating learning, connecting ideas between sessions, and applying insights to professional development. Guest speakers and real-world examples further enhanced accessibility and relevance, strengthening both cognitive and emotional engagement. Critical thinking was also supported, particularly through reflective inquiry and exposure to different research paradigms, though experiences varied. Some participants felt opportunities for structured debate and deeper analysis were limited, leaving them less challenged than they had hoped.

Future iterations would benefit from clearer early signposting of aims, closer integration of the RDF, and more explicit framing of how personal development, research skills, and different forms of critical inquiry are intended to work together.

A range of wider factors influenced participants' engagement and the effective delivery of the programme. Technology was generally not a barrier, with high levels of digital confidence and proactive support helping participants navigate new platforms. Canvas was widely regarded as intuitive, but experiences with Miro were more mixed. Induction activities were important in building familiarity with the technology and addressing any issues upfront.

Workspace conditions also shaped engagement. Participants joining from busy professional settings sometimes faced distractions and limited privacy, which constrained their ability to focus and contribute fully. More broadly, professional demands were a recurring challenge for some, with competing responsibilities limiting time for pre-learning and reducing the depth of participation.

The online format was widely valued for removing travel barriers, reducing stress, and making participation more manageable alongside work, as well as enhancing accessibility for some by easing social anxieties. However, many expressed a preference for a hybrid model that would combine online flexibility with opportunities for face-to-face connection.

Delivery team structure and dynamics were also influential. A small, consistent core team fostered stability and safety, whilst a diversity of professional backgrounds, facilitation styles and guest speakers enriched learning and made it accessible to different preferences. Effective delivery was underpinned by strong leadership, clear roles and responsibilities, and regular planning and reflection, although facilitators noted that strengthening relationships and building a shared vision within such a diverse team required dedicated time and space.

With regard to the learning outcomes, the evaluation indicates that InRes made a clear contribution to developing participants' knowledge, skills and confidence as practitioner researchers. Growth in curiosity, openness, and the confidence to ask challenging questions was particularly strong, with creative activities and a supportive environment fostering a more inquiring mindset. Most participants also reported improved confidence in identifying and accessing reliable research sources and in developing research questions from practice-based problems. Critical thinking also improved, with stronger progress in evaluating the components of successful research than in critically appraising research findings, where change was more modest.

Improvements in personal effectiveness was another important outcome. Participants reported increased confidence, self-reflection and enthusiasm for research, though gains in the latter two were less often described as substantial, suggesting some already entered the programme with strengths in these areas. All participants reported some positive change in how they saw themselves as researchers, but shifts were uneven and often modest, underlining that identity formation is a longer-term process.

Professional and career development outcomes were broadly positive. Participants reported stronger confidence in identifying their development needs, planning next steps, and, for some, broadening their view of possible career routes. Networking and collaboration were also amongst the strongest areas of growth, with participants building new connections within and beyond the cohort. Most also expressed intentions to continue engaging in research-related training and development, although a minority were less certain about their future engagement.

In addition, confidence in using the Vitae RDF and in pursuing funding or development opportunities was more mixed, pointing to areas where further emphasis may be needed.

Participants also reported notable improvements in communication skills, gaining confidence in presenting research to different audiences and experimenting with creative approaches to share their work. Awareness of the social and cultural context of research also increased. Leadership outcomes, however, were more tentative. Most participants indicated improved confidence in their understanding of leadership and in demonstrating it in practice, but very few described substantial improvements, and shifts in leadership identity remained limited. Whilst the programme helped participants to begin to reframe leadership in collaborative and relational terms, further emphasis and clearer framing will be needed to strengthen leadership outcomes in future iterations.

In conclusion, the evaluation findings were synthesised into a revised theory of change, which captures how the programme's mechanisms fostered engagement, the outcomes achieved, and the wider system drivers shaping delivery. Drawing on these insights, the report then sets out recommendations for future iterations of InRes. These recommendations highlight ways to strengthen engagement across its emotional, behavioural, collaborative, social and cognitive dimensions, to address wider contextual factors that influence engagement and delivery, and enhance the programme's capacity to achieve its intended outcomes.

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1 Introduction

1.1 Background

Since 2019, NHS R&D NW has run the Early Career Researcher Development Pathway (ECRDP) Programme to support nurses, midwives and allied health professionals (NMAHPs) in the North West to develop the knowledge, skills and personal attributes needed to progress as a researcher in health and care. This course was funded by the NIHR Clinical Research Network in the North West Coast (NWC) and Greater Manchester (GM) and is accredited as a Masters-level course by the University of Liverpool (UoL). It runs for 12 months beginning with a residential weekend and followed by 10 in-person workshops and a celebration event. During this time, participants take part in online group coaching sessions, work with a mentor, and complete assignments, including a five-year career plan.

In 2023, it was proposed that an online-only version of the ECRDP be piloted to reflect the post-COVID shift towards digital learning and to support the health and care system's wider digital agenda. Moving online was seen as way of making the programme easier to scale, increasing reach and accessibility by enabling participation regardless of location. It would also deliver cost efficiencies by reducing venue, travel, and accommodation expenses.

In early 2024, a series of online listening circles and a survey were undertaken with the ECRDP design and delivery team, ECRDP alumni and other NMAHPs to gather insights that would inform the design of the proposed online programme. Discussions explored what helps and hinders engagement in online learning, potential barriers and support needs, and preferences for face-to-face versus online delivery. Findings were summarised in a report and shared with the team responsible for the redesign.

The pilot programme, InRes: Introduction to Research, was built on the principles and ethos of the ECRDP, reworking its aims and redesigning its structure, delivery, and support for an online environment.

1.1.1 InRes aims and learning outcomes

The principal aims of the InRes Programme are:

1. Enable participants to understand their potential as practitioner researchers through personal and professional development within the health and care context
2. Develop participants' researcher skills and competencies in support of their research career journeys
3. Enable participants to understand the nature of future health and care practitioner research leadership role(s) and to begin to engage with this agenda.

The learning outcomes are defined as follows:

1. Evaluate critically the intrinsic and extrinsic factors that are involved in successful health and care research.
2. Analyse and evaluate critically the components, application and importance of leadership in a practitioner research environment.
3. Reflect critically on the personal and professional development requirements of becoming a healthcare research leader.
4. Demonstrate and apply newly acquired knowledge related to networking and its impact on health and care researcher effectiveness.
5. Identify, understand and begin to develop the knowledge and intellectual skills in research appropriate to early career, health and care researchers.

Although not formally accredited, the pilot's aims and outcomes are aligned with the University of Liverpool's Level 7 accreditation requirements.

1.1.2 InRes structure and pathway

The InRes programme ran from October 2024 to June 2025 and comprised ten interactive workshops organised into key thematic areas aligned with the Vitae Researcher Development Framework (RDF), culminating in an online celebration event in July. The workshops were delivered in an order designed to create a coherent learning pathway as follows:

1. Creating the InRes community
2. Building a support network
3. Exploring MBTI
4. Developing an inquiring mind
5. Developing a research career path
6. Research paradigms
7. Communicating research
8. Governance, ethics and planning
9. Building and sustaining teams
10. Leading a culture of R&I

In September, two 2-hour induction sessions were held to introduce the online learning platforms, provide interactive opportunities for participants to familiarise themselves with the technology, and to outline the programme whilst helping participants begin to get to know one another.

Participants are assigned to a coaching group and take part in eight group coaching sessions facilitated by experienced coaches and scheduled between workshops to support participants to “navigate the organisational challenges you may face”. In addition, participants are expected to identify a mentor and arrange one-to-one mentoring sessions; for those unable to source a mentor independently, a list of potential mentors is provided. The aim of mentoring is to support participants to develop their “practitioner researcher career in line with your aspirations.”

Participants complete two assignments designed to “consolidate learning and support professional development”. The first is a reflective portfolio that uses established reflective models and theory to critically reflect on and synthesise their experiences, learning, and development over the course of the programme. The second assignment is an online creative presentation outlining their 5-year career plan.

1.1.2.1 Technology

In collaboration with the UoL, InRes participants gain access to Canvas, a virtual learning environment that hosts all the programme information, pre-learning materials, and resources, including MS Teams links for online workshops, and provides a platform for assignment submission. Canvas also gives participants access to the University’s library.

Participants are also expected to use Miro, an online collaborative whiteboard platform for interactive activities such as brainstorming and idea mapping. In addition, a WhatsApp group was set up to support communication among participants and with facilitators.

The programme materials specify that participants must have access to a computer with a reliable Wi-Fi/internet connection in a “dedicated, quiet and private space away from the work environment”.

Some additional physical materials “to support you in your development” were also sent through the post.

1.1.2.2 Programme team

The core programme design and delivery team comprises a programme leader and five programme tutors from academic, practitioner research, and /or learning and development backgrounds. They were supported by three additional programme staff, including one dedicated to technical support. Further IT and Canvas support was provided by two members of the University of Liverpool team.

1.1.2.3 Applications

Invitations were sent to NMAHPs who had previously applied for the ECRDP, the NHS/HEE Integrated Clinical Academic (ICA) internship or the social care internship, as well as those who had expressed a strong interest in developing a research career. Applicants were required to provide written confirmation of their line manager's support, agreeing to release them for two days a month. Expressions of interest were sought by early June, after which they were invited to take part in an informal online conversation with programme facilitators. This conversation was an opportunity for participants to learn more about the programme and for facilitators to understand the applicant's background, research ambitions, and goals. 16 people were selected to take part.

1.1.2.4 Programme approach

The InRes programme is designed to create an engaging, supportive and flexible online learning environment that encourages exploration, reflection, and collaboration. It offers active learning experiences through a blended approach combining whole-group and small-group discussions, as well as individual activities, underpinned by reflective practice and arts-based, creative methods. Interactive activities are used throughout to stimulate thinking and engagement, while dialogue with experienced professionals and researchers enriches learning. Peer-to-peer learning is embedded through the development of a community of practice, through which participants support one another and exchange experiences and insights to build collective knowledge.

The programme uses a flipped learning model, releasing pre-learning materials two weeks before each workshop for participants to complete at their own pace. This approach is designed to support a "comprehensive understanding" of the subject matter and prepare participants to engage fully in the workshops. Materials are organised into 'watch', 'read', and 'do' activities, with additional 'further reading' made available.

2 Evaluation Framework

2.1 Evaluation Purpose

The evaluation aims to assess how effectively the InRes Pilot Programme fostered participant engagement, to identify wider contextual enablers and barriers to engagement, and to examine the extent to which the programme achieved its stated aims and learning outcomes. It also sought to provide timely feedback to support ongoing development and refinement of the pilot and to generate practical insights and recommendations for future iterations of the programme.

2.2 Evaluation Approach

The evaluation was primarily formative in the early stages, designed to generate feedback that could be used to make adjustments during delivery. As InRes was a pilot programme, with aspects of its model still being trialled, the evaluation also took a developmental approach, generating evidence to inform future iterations. In doing so, the evaluation remained flexible and adaptive, adjusting to emerging lines of enquiry and responsive to early insights as the pilot unfolded. Later in the programme, an outcome-focused component assessed participants' views on the extent to which the pilot had supported them in developing knowledge, skills, and confidence aligned to its aims and objectives. The emphasis throughout was on generating insights to strengthen future development rather than producing a final summative judgement.

The approach was theory-informed, drawing on an initial theory of change that framed the evaluation questions, guided data collection, and shaped the analysis (see Appendix A). Within this framework, participant engagement was given particular emphasis, both as a focus of enquiry in its own right and as a factor influencing the conditions under which programme outcomes were most likely to be realised.

2.3 Evaluation Questions

The evaluation was guided by the following questions:

1. To what extent did the InRes programme's design and delivery foster participant engagement?
2. What wider factors enabled or hindered the effective delivery of the programme and participants' engagement?
3. To what extent did the programme achieve its principal aims and learning outcomes in developing participants' knowledge, skills, and confidence as practitioner researchers?
4. How can the findings be used to strengthen the design and delivery of future iterations of the programme?

2.4 Evaluation Design

The evaluation used a mixed-methods design, combining qualitative and quantitative approaches to capture a breadth of perspectives alongside rich insights. Data was collected at multiple points in the pilot to examine how the programme's design and delivery fostered participant engagement, to identify wider enablers and barriers, and to assess its contribution to participants' knowledge, skills, and confidence as early career practitioner researchers.

A programme-specific theory of change was developed to outline how the pilot was expected to achieve its intended outcomes, with a theoretical framework used to make sense of the proposed mechanisms of change. Together, these frameworks informed the evaluation questions, guided data collection, and shaped the analysis.

Stage 1: Development of the theory of change

- Documentary analysis of ECRDP materials, together with insights from the listening circles, survey, and planning session notes, to develop the initial programme theory and identify key mechanisms of change
- Identification and adoption of the Online Engagement Framework (Redmond et al., 2018¹) to structure and interpret participant engagement as a key mechanism of change.
- Consultation with programme leads to refine the theory of change and ensure alignment with programme aims and delivery plans (see Appendix A).

Stage 2: Early-stage surveys

Short online surveys gathered feedback from participants and facilitators following the induction and first four workshops, providing an early snapshot of factors shaping engagement. Questions were informed by the dimensions of the Online Engagement Framework and by emerging insights from the initial stages of delivery. Findings were shared with the delivery team to inform ongoing adjustments to the pilot.

Stage 3: Mid-to-late programme interviews

In-depth interviews with 10 of the 16 participants and 5 facilitators explored experiences of delivery and participation in more detail, guided by the five dimensions of the Online Engagement Framework and shaped by emerging insights and themes from the earlier evaluation stages.

Stage 4: Post-programme outcome survey

At the conclusion of the pilot, a survey captured participants' views on the programme's contribution to their knowledge, skills, and confidence as an early career researcher in line with its key learning objectives.

Stage 5: Analysis

Survey data were summarised using descriptive statistics, with open-text and interview data thematically coded against the evaluation questions and emergent themes. Full verbatim quotes have been included to illustrate key findings and preserve participants' voices. The Online Engagement Framework and the programme's theory of change provided the lens for interpreting how different elements of the programme supported engagement and contributed to the programme's mechanisms of change, while the Vitae RDF was used to organise analysis of programme outcomes. See Appendix A for the initial theory of change and Appendix B for the revised theory of change.

2.5 Ethics

Under the NHS Health Research Authority Guidance, this work did not require review by a Research Ethics Committee (RED) as it does not constitute a research project². In addition, REC review is not normally required for research involving NHS or social care staff recruited as participants by virtue of their professional role.

The evaluation followed good ethical practice. Participation was voluntary, and all participants were informed about the purpose of the evaluation, the use of their data, and their right to withdraw at any time. Responses were treated confidentially, with findings reported in aggregate or anonymised form.

¹ Redmond, P., Heffernan, A., Abawi, L., Brown, A., & Henderson, R. (2018). An online engagement framework for higher education. *Online Learning*, 22(1), 183-204.

² NHS Health Research Authority 'Does my project require review by a Research Ethics Committee?' V 2.0

3 Results

The following section presents findings from the organised around the five dimensions of the Online Engagement Framework, which provided the primary structure for analysing participant and facilitator experiences and perspectives.

Survey results are presented as percentages to allow comparison across surveys with different numbers of respondents, where relevant, and to compare change across different outcome measures. However, given the small cohort size, even minor differences in responses can translate into large percentage shifts that may reflect only one or two participants.

3.1 The Online Engagement Framework

This framework offers a multidimensional approach to understanding how learners engage within online programmes. It identifies five interrelated forms of engagement that together can be used as a lens for evaluating the different forms of engagement fostered through the programme, how these were experienced by participants, and the ways in which delivery practices supported or constrained engagement.

- Emotional engagement encompasses the affective dimension of learning, including how learners articulate their motivations, and respond emotionally to their experiences, for example through enthusiasm, anxiety, or enjoyment.
- Behavioural engagement reflects the skills and actions learners demonstrate, including persistence, self-regulation, upholding agreed learning norms, and supporting peers whilst developing their academic skills.
- Collaborative engagement highlights the ways in which learners work with others, including collaborating with peers on tasks, building relationships with facilitators, engaging with institutional opportunities, and forming professional networks.
- Social engagement refers to the extent to which learners build community and a sense of belonging, for example through developing relationships with peers, establishing trust, and participating in interactions that strengthen group cohesion.
- Cognitive engagement captures the active processes of learning, such as thinking critically, integrating and justifying ideas, drawing on multiple sources of knowledge, and developing deeper understanding.

3.2 Emotional Engagement

Emotional engagement refers to participants' emotional reactions to learning including their feelings, attitudes, motivations, and commitment. These affective dimensions influence how students sustain their engagement with tasks, peers, and the learning environment. In this evaluation, emotional engagement was foregrounded by the design and delivery team as the foundation for sustaining other forms of engagement in the programme, with the creation of a safe and supportive learning environment considered a foundational part of this process.

3.2.1 Feeling safe and supported

The programme design conveyed that feeling safe and supported was a crucial precursor for fostering positive emotional responses to the programme. Accordingly, creating a psychologically safe environment in which participants felt cared for and comfortable enough to 'open up' and be vulnerable was a key concern within the delivery team. This affective state, shaped by whether participants felt included and comfortable, could either encourage or inhibit behavioural engagement.

In the pilot, participants reported feeling well supported from the outset (see Fig. 1), with all respondents agreeing that the first three workshops met their learning needs and that they knew who to contact with any questions or concerns.

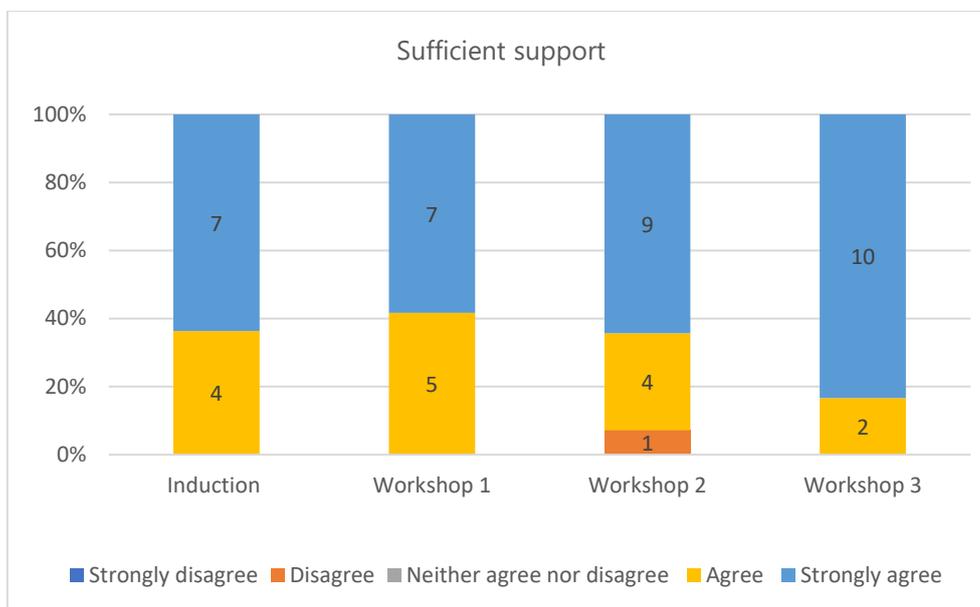


Figure 1

Participants' agreement that they had sufficient support showed a slight upward trend over time, reflecting growing trust in the programme's support structures. The only disagreement in the second workshop was related to the fact that the pre-learning materials were released just a week in advance (see 3.3.1).

Feeling sufficiently supported was also reflected in participants' confidence to ask questions, with most participants reporting they felt 'confident' or 'very confident' to do so during the induction (see Fig. 2).



Figure 2

Those who indicated feeling only "somewhat confident" to ask questions at the induction variously attributed this to unfamiliarity with the group, personality factors, and/or connectivity issues. While confidence remained steady in the first workshop, no respondents rated themselves as 'very confident', perhaps reflecting the transition from the shorter, structured induction to a full-day session with more group discussion. By the second session, facilitators noted an overall increase in participants' confidence in the learning environment.

Some participants also reported that the online format itself provided a supportive environment for learning (see 3.8.1).

After the induction, however, some facilitators questioned whether participants felt psychologically safe enough to share, noting a limited willingness to verbally contribute to whole group discussions (see 3.4.2.). They recommended that the induction focus on building confidence with the technology, leaving the first workshop to concentrate on creating a psychologically safe and supportive environment for verbal contributions.

In practice, participant feedback from the first two workshops suggested that a sense of psychological safety was quickly established. As shown in Fig. 3 below, all respondents agreed or strongly agreed that they felt safe and supported to share their thoughts and experiences during the early sessions.

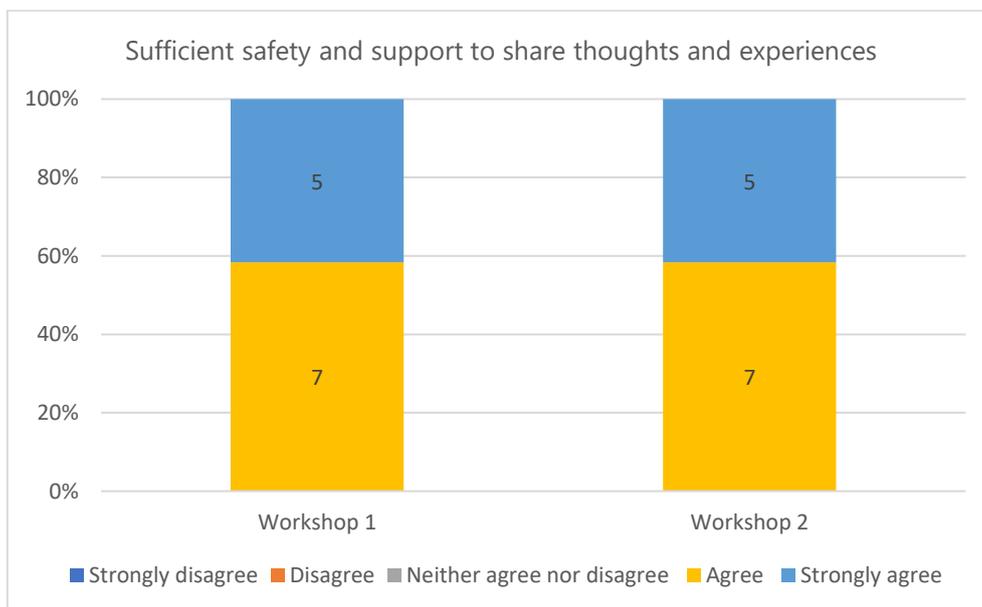


Figure 3

Facilitator feedback from the first session also indicated that a 'safe' space had been created online, reflected in participants' growing confidence to join group discussions and share more about themselves (see 3.4.2). However, there was ongoing concern that some people were still joining the session from work meaning that they did not have sufficient access to a safe and confidential space (see 3.8.2.).

In addition, two interviewees expressed some discomfort with certain methods used to build social engagement during the early sessions. One noted that activities like sharing childhood photos could be uncomfortable or triggering, reducing people's willingness to contribute and highlighting the need for greater sensitivity in design:

Sometimes I felt like I didn't want to really contribute, but I have to. I think there was like one little exercise that we were asked to do to put pictures on the Miro board of yourself as a child and then be ready to share your childhood aspirations in the group. And they went round to everybody and asked you to discuss that. And some people seem really comfortable with that [...] that always stands out to me as not being the wisest thing to do, because, one, someone might not have childhood photos or it might be like a painful time for them. And two, not everyone wants to talk about something like that. So, I think sometimes there's been attempts to build that kind of sense of community that I think maybe were a bit not thought through very well [...] I did put a picture on, but I thought it was a bit too intrusive potentially [...] I didn't particularly want to talk about like childhood aspirations and things personally (P1)

Another interviewee similarly noted that "some bits have been a bit personal and I've maybe not wanted to explore in that environment" (P2)

Despite these reservations, 8 of the 12 respondents agreed that they felt able to open up and be vulnerable during the third workshop, 3 of whom strongly agreed. Four respondents selected a neutral response, with one noting that they simply did not feel the need to do so.

Reflections from some participants suggested that the MBTI assessment played an important role in supporting participants to speak openly about early uncertainties and anxieties during this workshop:

I messaged Gill privately about my feelings of uncertainty and overthinking before today's session as I had concerns about how the MBTI would fit with my years of 'masking' and because of my conflicting issues with autism and ADHD (need quiet stability, crave routine, but also need variety and get distracted and chaotic!!) but actually, it really helped me. I will reflect on it more, but I feel that it will actually be beneficial and will help my mental health, so thank you

One participant added that the MBTI assessment helped normalise different learning styles and highlighted the value of learning from these differences, helping ease their early anxieties about belonging in the programme:

I like the fact that we start with the personality thing. So, it just means that there was like acknowledgement that of the fact that people learn differently and then it made me more relaxed in the course because I was worried in the first introduction because so many people had done things which were research related, but I was more like a novice. I didn't have a clear idea what I was going into and I wanted to do research obviously, but I didn't know how I was going to go about it [...] I felt like I questioned myself a couple of times. If I actually belong here. because it looks like people already have things that they were doing or they already have their career in research or they've done a lot of quite a lot of things, but when the personality class came and they explained that they picked so many people so that people can learn from each other it made me a bit more relaxed (P3)

Later, in the interviews, one participant simply reflected:

I felt comfortable to share. I think it was a very comfortable environment. I think that everyone was listening. Everyone's really respectful. Everyone had the chance to talk if they wanted to talk (P4)

Several comments also highlighted the positive role of the facilitators in creating a safe and encouraging environment, with participants describing them as "very warm and supportive" and commenting that 'it all feels very supportive.'

One of the interviewees explained that the facilitators' approach created a comfortable space to contribute and explore new ideas, even when they felt unsure or lacked confidence in their responses:

It's great like the facilitators have been really good. Everyone's been really understanding. I've never once felt - like when I voiced an opinion - worried that it would be torn apart, even if it's not that well sort of fleshed out. People have either expanded on it or sort of welcomed discussions on it later. It's not been something that anyone's ever shot down, which has been really nice. So, for me, it's felt like quite a comfortable environment to explore things that I'm not really that confident in (P5)

Some of the post-session feedback echoed this view:

Sessions were organised in such a way which encouraged engagement in a safe way with enthusiasm from the facilitators

I thought the format was great. The discussions were well facilitated and I felt well supported to voice and develop my own ideas

Similarly, another interviewee noted how the programme offered opportunities to safely explore ideas, be curious and experiment in ways they felt were not possible in their current work environment, and which they identified as central to the research process:

It's definitely felt a safe space. Something that I've not been able to do in my employment because it's never felt a safe place to go 'what about this?' or 'has this has been tried?' or 'could we experiment with this?' or I've got these thoughts. It's definitely felt a safe space to test out those skills and be curious about what can and can't be and I guess that's a lot about what research should be and can be. It feels like the infrastructure to be able to safely be curious is there [...] rather than questioned like it probably is at the minute. I think at the minute any sort of curious thinking – it feels like it's very sort of competitive and you're after somebody else's job - so just do what you're doing (P6)

Another added how this supportive facilitation enabled their engagement and enhanced their learning from the programme:

I feel comfortable and confident in the sessions. I think they're really well led and [...] I feel I've got as much out of it as I put in (P7)

Facilitators similarly viewed the creation and maintenance of a safe environment as essential for building the readiness to engage with the discomfort of exploring unfamiliar topics, adopting new terminologies, and developing the critical thinking skills needed to challenge existing assumptions (see 3.6.4). To this end, some facilitators began to critically examine the power dynamics at play, considering the extent to which participants could and should act as co-creators of a safe space alongside the facilitator's role in "holding the group".

The delivery team also recognised that, for healthcare professionals, showing vulnerability, such as admitting uncertainty, acknowledging gaps in knowledge, or sharing personal experiences, could feel at odds with their professional identity. In this context, moving from a 'safe' space to a 'brave' space was seen as an important step towards deeper engagement, encouraging participants to take greater risks in sharing experiences and exploring ideas. Creative strategies, such as using 'alter-egos' (e.g. puppets), were suggested as one way to support this process, enabling participants to express ideas, thoughts, and aspirations in a less direct and potentially less exposing manner (see 3.3.2.2).

As discussed in Section 3.4.3, participants also highlighted the smaller coaching groups as spaces where they felt most safe and supported to be open, share experiences, and show vulnerability. Social connection within these groups was perceived to foster feelings of safety, which in turn sustained and deepened social engagement. Facilitators likewise emphasised the reciprocal relationship between social and emotional engagement, noting that informal interaction, rapport-building, and shared experiences were key to fostering trust and creating the conditions for more active and meaningful participation.

3.2.2 Energy and motivation

Participants' energy levels and sense of motivation were also identified as an important aspect of emotional engagement that was likely to underpin other forms of engagement in the course. As fatigue was recognised by the delivery team as a potential risk of online delivery, participants were asked to reflect on their energy levels during the initial workshops (see Fig. 4).

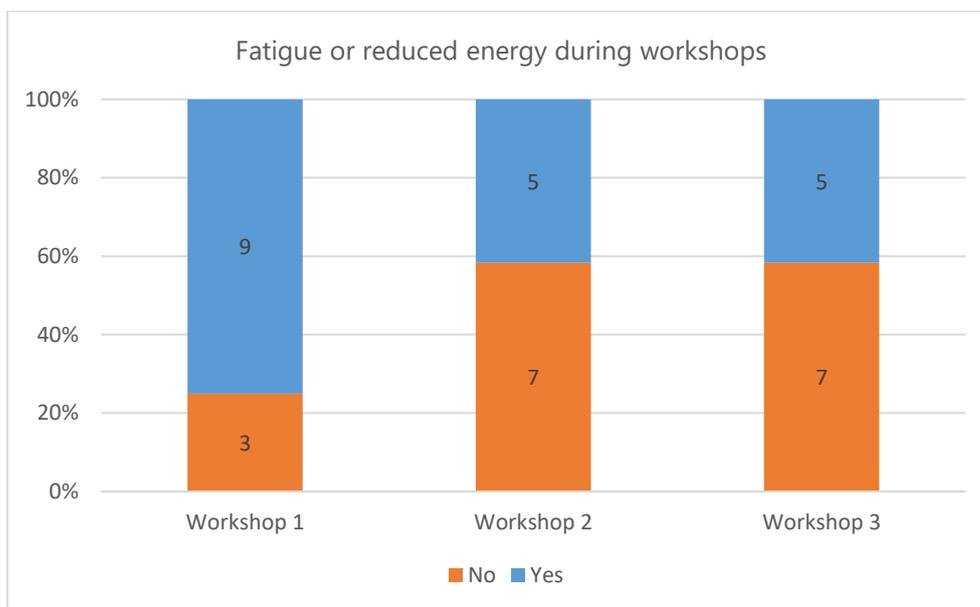


Figure 4

Session 1

Fatigue or a significant drop in energy levels was most commonly reported during Workshop 1, with fewer participants experiencing fatigue in Workshops 2 and 3. In the first session, the majority of respondents indicated feeling especially fatigued in the afternoon and towards the end of the day. Fatigue was also an issue for the delivery team. One person described finishing the first session feeling “exhausted with a headache”, whilst another linked their tiredness to their neurodivergence:

I felt a little tired but only because of my own overthinking and questioning my own 'presence' and how I was perceived. As I'm late diagnosed autistic, I'm still learning about myself and when I'm being fully me, or when I'm masking

Whilst all respondents and all but one indicated that the time allocated to activities and the overall pace of the first session respectively were ‘just right’, and only one participant indicating that there were insufficient breaks, comments nevertheless suggested that aspects of pacing and structure still affected participants’ energy levels. For example, one participant attributed the afternoon slump in energy to fewer breaks after lunch and another to the length of time spent in front of a screen. However, a third noted that the ‘final activity perked me up’ illustrating how particular activities could re-energise and re-engage participants.

In that regard, participants highlighted collaborative, interactive and creative tasks as especially engaging aspects of the session (see 3.3.2).

In addition, two participants suggested that the first session could have been shorter, with one commenting it “could have been condensed somewhat” and another feeling that too much time was spent discussing the pre-learning tasks. Facilitator feedback reflected a similar mix of views, with one describing the timing and ‘flow’ of the session positively, another noting that the afternoon ‘felt like a long day with lots of talking.’

In terms of indicators of motivation from the first session, participants’ responses were very positive. Several describing feelings of excitement and anticipation

Excited and looking forward to the next one and being prepared for it

Looking forward for what was to come

More energised after finishing the session

Just as enthused

One facilitator also described how this session had supported them in “looking forward to involvement in the course”. Participants also expressed positive emotional engagement in terms of their satisfaction with and enjoyment of the learning experience, variously describing the session as “good,” “enjoyable,” and “thorough,” with one participant saying they felt “quite happy” with the experience. When asked about areas for improvement, one respondent simply wrote “Thanks for a great session.”

With regards to the induction, no specific data was collected on experiences of fatigue or pacing due to it being a shorter session. However, one person commented that the “the last half hour was slightly more than needed” and another suggested that more time could have been allocated to “introduc[e] ourselves and understand where everyone is on their research journey”. This latter comment points to the importance of creating opportunities for social engagement from the outset (see 3.5). From a facilitator perspective, the induction was felt to have been well-structured, supported by “tight organisation and planning” and a “well thought-through agenda” in which the “activities worked well.”

Session 2

For the second session, the timing of those experiencing a drop in energy levels was more varied compared to Workshop 1. Some participants reported feeling fatigued in the morning, one person citing personal reasons, and two others linking this to the introductory activity running for too long. Another participant felt that too much time was allocated to the topic of networking. Furthermore, whilst one person noted that “a lot of the pair activities didn't require the amount of time given” the majority of respondents highlighted the paired discussion as when they felt most engaged (see 3.4.1). These views were partly reflected in only two respondents rating the pace of the second session as ‘too slow,’ and only one feeling that too much time had been allocated to certain activities. For one participant, feelings of fatigue were linked to a lack of enjoyment with the ‘placing myself in the picture’ task, which had been repeated from the first workshop. Whilst facilitator feedback described the session as running “smoothly” with a good overall “structure”, comments also suggested that an over-reliance on group discussions and “talking” activities might also be affecting energy levels (see 3.4.2).

As with the first session, some participants noted increased tiredness in the afternoon/end of the day in the second session, with some explicitly attributing this to screen fatigue. Facilitator feedback from this session also noted that it was a “long time on screen”. One participant noted that the afternoon fatigue was intensified by the placement of the coaching session at the end of the day:

After the last break-I feel it is exhausting sitting at a computer all day and having the coaching session at the end made it difficult to engage as I felt my mind drifting

To address this issue, another person suggested scheduling the coaching session earlier in the day (see 3.4.3). However, no issues were raised regarding the number of breaks in the second session, with one participant comparing them favourably to the first workshop and another describing them as “better spaced.” The second workshop also introduced a lunchtime activity, Street Wisdom, which encouraged participants to take a reflective walk. Feedback suggests that this activity enhanced emotional engagement, with participants highlighting the enjoyment and novelty of the experience, as well as the restorative benefits of physical exercise and time outdoors that boosted energy and concentration. However, one participant did note that distractions such as noisy main roads made it difficult to fully engage with the activity, and another remarked that it was difficult to “switch off” as they were required to take their phones with them to take a photo. Yet, overall, the comments were positive, with one participant describing it as a “good quality break” that “allow[ed] for processing and the

offering of interactive feedback afterwards". Likewise, facilitators noted strong engagement with this activity. In the interviews, one participant also reflected on the value of these kinds of activities in providing essential screen breaks and a change of pace. They explained that such activities helped counteract the ways in which the online environment restricted wider interactions with their surroundings and offered opportunities to literally and conceptually broaden their perspective:

I think that [creative activities] gives you a break as well, because sometimes there's been a lot of information and then we've needed screen breaks [...] I guess it's just being mindful of what the activity is. There maybe could be some more look around the room and what have you got in your environment, bring it into your space online, do a little task for us, like find something that's related to this and present it. And I know that can be intimidating for some people, but I quite like that as it gets me out of just sitting in a square box in a square room. It reminds me that I'm in the space and I can utilise my environment to aid my learning. And sometimes that might be missed. Whereas if you're in a space with other people you can be more observant. Take notice of pictures on the wall or people that walk past the window, or your journey to get there [...] I guess maybe that's why they tell us to go out for a walk at lunchtime and take a picture of what you've seen. But some people will and some people won't. I think if you're forced to by means of you've got to get yourself to a venue that happens naturally (P6)

Taken together, these reflections highlight the role of structured breaktime activities in bolstering energy and emotional engagement, as well as supporting behavioural, collaborative and cognitive engagement with the course content.

At the end of the second session, several comments suggested a continuing sense of momentum and motivation, with participants describing feeling "energised," "prepared," and "looking forward to the next one." Positive affective responses were also evident, with one person reporting feeling more "positive," and others describing the day as "interesting" and "enjoyable." Facilitators echoed these impressions, noting the group's "positivity" and that participants were "keen to get going at the start of the session."

Session 3 and 4

In the third workshop, participants' experiences of fatigue also varied over the course of the day. However, whilst some noted feeling more tired towards the end of a "busy day", no adjustments to the breaks were suggested. On the contrary, some participants highlighted how the timing and format of the lunch break supported their wellbeing and sustained their engagement:

The extended break period (with provision to include the activity) was great as it helped give me a chance to recharge.

Another reflected positively on the scheduling of content and pacing of the breaks in supporting their engagement:

This time it was better having a later lunch and only having reflections at the end as I feel after a long time on the laptop my concentration goes [...] I liked how it was done last time. A full morning and then a nice slow reflection discussion at the end. If the heavy content was at the end, I think I'd have lost focus and not learnt as much

From the facilitator's perspective, the group appeared "upbeat and engaged during the first half of the day, dipping towards lunch. After lunch, people were clearly tired," and made the suggestion that this session might be better delivered across two half-days.

Several participants reflected that they felt most engaged in the third session during the presentation and in the facilitation of group discussions. This feeling of emotional engagement was linked to the way the facilitator structured and supported discussions, encouraging collaborative and cognitive engagement, which, in turn, sustained participants' interest and focus (see 3.4.2):

Follow up questions from the facilitators were good to encourage further discussion as well [...] feedback discussions from the breakout rooms [...] gave us a chance to reflect on discussions and dig into our answers

Section 3.6.2 explores further how emotional engagement, expressed through feelings of motivation and commitment, is closely intertwined with cognitive engagement as participants connect new learning to their own contexts and perceive the content as relevant to their work and aspirations.

In terms of facilitation in stimulating these positive emotional responses, participants also emphasised how the facilitator's approach fostered emotional engagement, "*Gill's teaching style was very engaging*", which, in turn, supported cognitive engagement, "*Gill was a great presenter and all the material was introduced in an accessible and thoughtful way.*"

In one of the interviews, a participant reinforced this point, highlighting how a facilitator's style could strongly influence emotional engagement, making certain sessions "stand out" as especially engaging.

The fourth session was the final workshop that collected feedback on the participants' immediate experience, with minimal issues with time and timings raised. One person noted that "*perhaps the 1.45hr for lunch is a bit long*" and another commented "*I think the pace was a little slow today*".

In a later interview, one participant reflected on the value of the long lunch break, but felt a shorter lunch and earlier finish would help avoid screen fatigue and the afternoon drop in energy levels:

It feels so nice to have a long lunch with a bit of an exercise, but I think realistically I'd have a shorter lunch to be done earlier because by the time like 3-4 o'clock hits, I could fall asleep [...] it does feel like a lot of screen fatigue even with that long lunch [...] I think I'd be more awake in person (P1)

They added that late afternoon fatigue made it difficult to engage with any content, such as guest speakers, scheduled for this time. By contrast, another participant valued the extended breaks for both rest and reflection, even if the day felt long overall:

I know other people haven't liked this, but I prefer some long breaks [...] So I liked that structure, having a really long dinner. But it was quite a long day and there was always like an activity in the lunch (P4)

One interviewee reflected that, although they initially felt the breaks were too frequent and too long, they later came to appreciate their value and expressed concern that breaks had been shorter in recent sessions:

It felt like there was plenty of breaks and then the last few sessions have felt that they've been shorter. So, I was quite overwhelmed at the beginning. I was like, gosh, you've got nearly two hours for lunch, we've just had a 10-minute break. You've got another one at 3:00, and then I kind of saw the value in that. And then they've kind of been a bit squashed more recently (P6)

Later in the programme, facilitators reflected on the importance of incorporating sufficient breaks as a key aspect of caring for participants that acknowledged their demanding professional and personal responsibilities, as well as recognising the impact of online fatigue. To this end, some facilitators felt that shorter half-day sessions might be more effective in sustaining engagement as well as making the workshops more accessible for those who struggled to secure a full day of leave (see also 3.8.3).

However, one participant emphasised the value of full-day sessions in sustaining behavioural engagement by enabling deeper immersion and focus. They explained that the full-day format offered protected time for reflection and ensured activities set during breaks were not lost to work pressures:

I think it's really good as it is because one of the things that I would say is that when they do the session in the morning, they then give you some work to do throughout your lunchtime and then go back and you do the work. If it was half days, I would probably suggest that the majority of the people wouldn't be doing the work that they should do over the lunch time. [... A full day] gives them that opportunity to have that space as well, whereas they might not be getting it otherwise. Having that full day and having that reflective time in the middle will help people sort of do the session [...] I would say don't lose that because I think people would find it harder (P7)

Similarly, one interviewee felt that a half-day format would reduce their ability to engage fully, forcing a faster pace and increasing the likelihood that work pressures would limit the time available to prepare beforehand and process their learning afterwards:

I probably wouldn't be able to invest quite the same as I can with a full day [if half day]. I think half a day would probably feel a bit rushed and I'd book things in afterwards, so I'd be mindful that I've got to plan for this appointment or I wouldn't decompress afterwards. So, I've got that time in the morning to feel prepared and refresh anything that I need to, and then I've got that couple of hours before the end of the day where I've got to start doing things again (P6)

Although most participants did not raise concerns about pacing or the time allocated to activities, and all respondents indicated that the volume of information covered during the early sessions was “just right”, another interviewee observed that the sessions could still feel fast-paced, even within the full-day format:

The day goes so fast, it's like you've literally only just started and we've reflected on the previous week and then we have a quick look at what we're doing today and stuff. Then we have a break, then we come back and we do a bit more then, we do a bit of reflection, then there's a long lunch and then it feels like we're only just back and we're finishing the thing. (P9)

By contrast, another interviewee felt that the days were too long and that the same content could have been covered in half the time. They pointed particularly to the length of introductions and discussion groups as contributing factors (see 3.4.2):

The overarching take away from me is that the sessions have been long. Just really long. The facilitators have been positive, very friendly, trying the best to be engaging over teams. So, I do appreciate that. I think they're probably doing the best they can given the setup, but they just do feel very long. And a lot of the times I've thought that we could have covered that content in a lot shorter time [...] there's almost been too much discussion [...] But sometimes it's just felt like too much or too much of an introduction. So, I felt like that could have been cut down a little bit in terms of time [...] I just feel like that sometimes I've come away from the session thinking that could have been done in half the day [...] I think maybe less sort of niceties and maybe just really brief check in and more straight into things. The breakout rooms are great, but either fewer of them or slightly shorter (P1)

3.2.3 Overall affective response

At the end of the programme, participants' feedback reflected a strongly positive affective response (see Fig. 5). The majority of respondents (10 out of 14) rated it as *excellent*, with three rating it as *good* and just one describing it as *fair*. Participants left a number of positive comments, one noting that they “enjoyed all [of the] programme” and another that “it worked well.” Several expressed gratitude for the opportunity, noting they

“completely appreciated the investment into the course,” while one summed up their experience simply: “Thank you – I have loved it.”

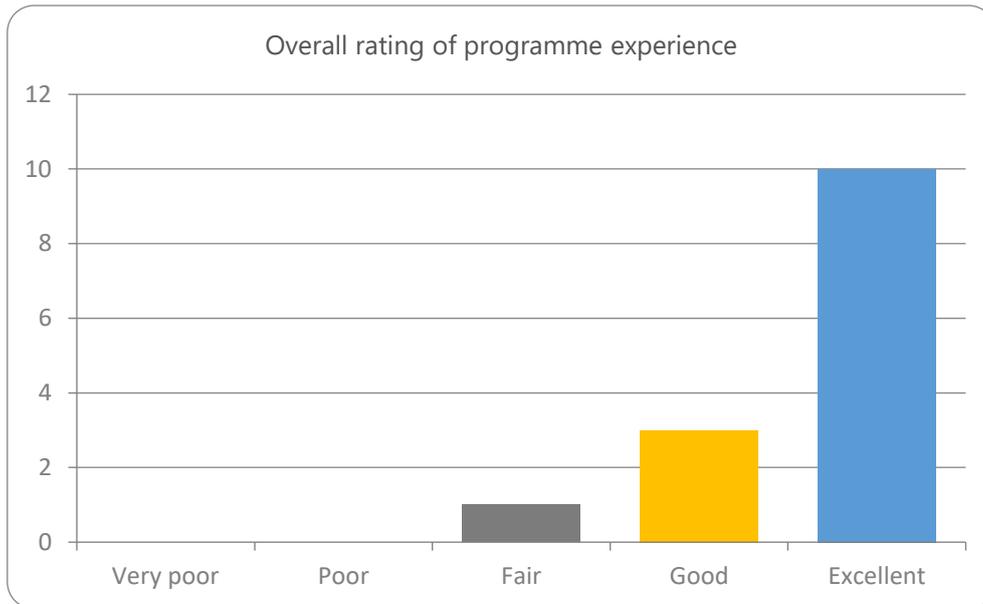


Figure 5

3.3 Behavioural Engagement

Behavioural engagement refers to the observable actions that demonstrate participants' involvement in learning, including attending sessions, completing tasks, paying attention, asking questions, contributing to discussions, and following agreed norms. These behaviours reflect the effort and persistence that sustain participation.

In this evaluation, behavioural engagement was examined in relation to the extent to which participants were provided with the resources, opportunities, and structures to take part in learning activities, and how they enacted this participation in practice.

The primary focus is on engagement with the pre-learning, which was both an integral element of the course, and a prerequisite for full participation in the online sessions. Accordingly, this section opens with an examination of participants' engagement in the pre-learning, focusing on the factors that enabled or constrained this aspect of the course, before moving onto look at the opportunities that enabled participation in the online sessions. Engagement in small- and whole-group discussions is explored separately in the section on collaborative engagement (3.4)

3.3.1 Pre-learning

As an indicator of behavioural engagement, participants were asked whether they had completed all pre-learning activities in advance of the first four sessions (see Fig. 6).

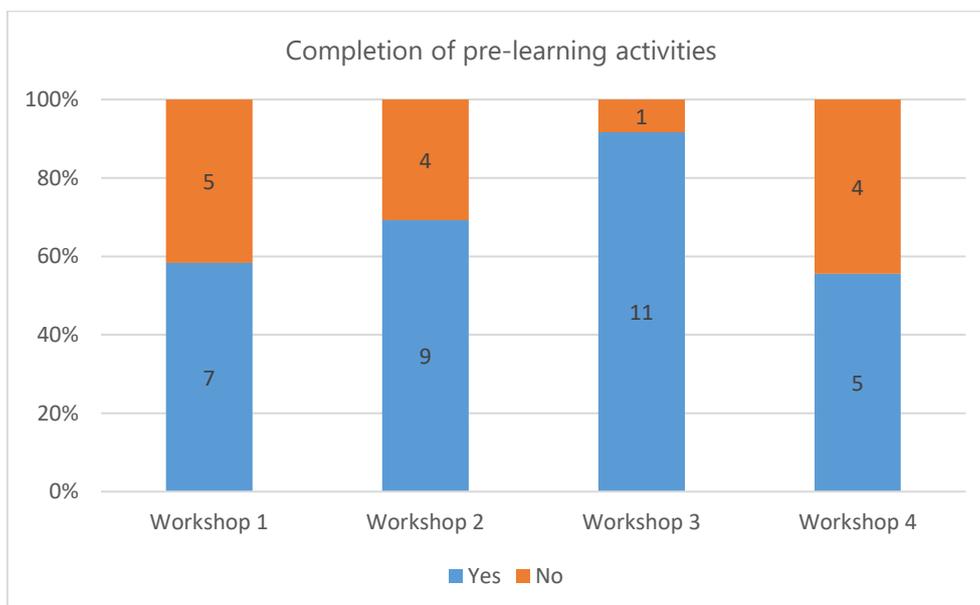


Figure 6

Just over half of respondents indicated that they had completed all of the pre-learning materials ahead of session 1, but behavioural engagement with this aspect of the course appeared to strengthen over the next two workshops, before declining again in workshop 4.

Participants were also asked whether they had engaged with the further reading and resources shared on Canas as part of the package of pre-learning materials (see Fig. 7).

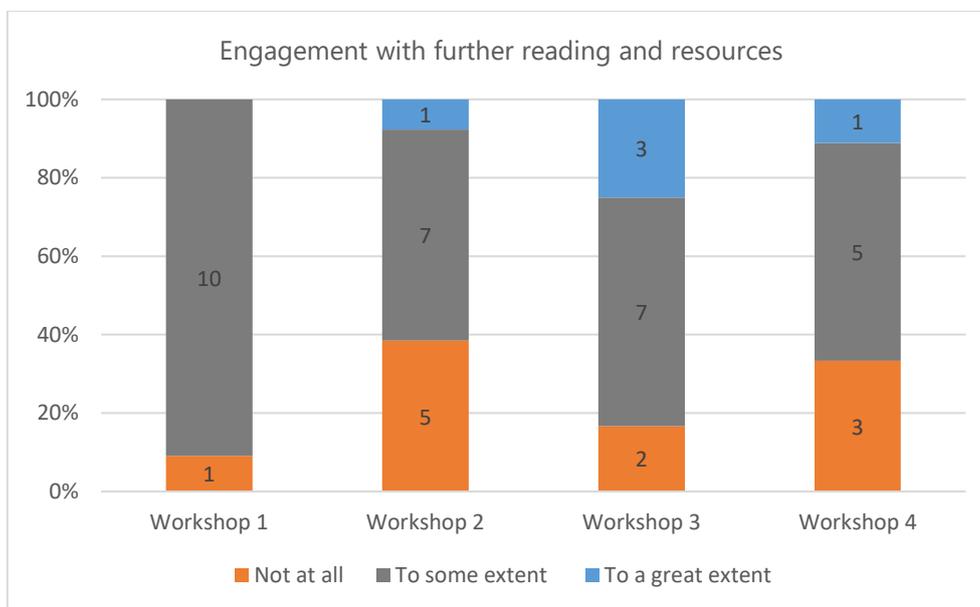


Figure 7

Engagement with the further reading and resources remained relatively consistent across sessions, with most participants engaging “to some extent” and only a small number reporting either no engagement or engagement “to a great extent.” The relatively high number of participants reporting “not at all” in workshop 2 may partially reflect that that materials were only released a week in advance of this session. One person also commented that they were “not feeling well enough to concentrate” on the materials for this workshop. Further reading materials on the MBTI appeared to prompt additional engagement with resources following Workshop 3, with one comment noting that they had listened to the podcast and others that they had downloaded one of the recommended books.

Overall, facilitators felt that engagement with the pre-learning materials improved over time, suggesting that this might be partly due to participants becoming more accustomed to the flipped learning model. Accordingly, one facilitator proposed that the initial workshops could be less dependent on pre-learning, allowing participants time to get used to this approach before expectations were gradually increased.

However, facilitators felt participants were not allowing sufficient time to engage with the pre-learning, which was considered vital for effective engagement in workshops. To explore this further, data was collected on when participants completed the majority of the pre-learning activities for sessions 3 and 4, as illustrated in Fig. 8.

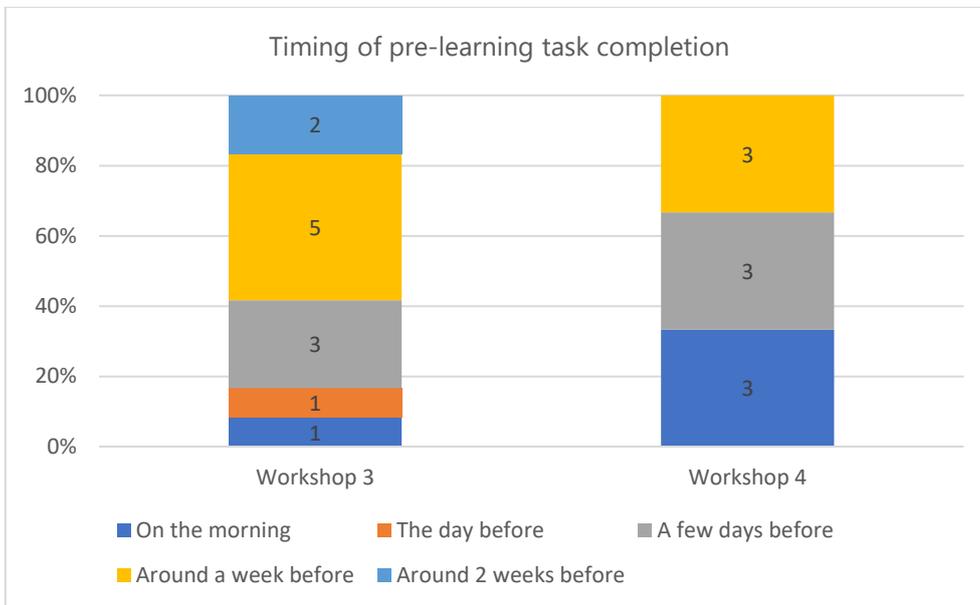


Figure 8

Fig. 8 shows that while two participants reported completing the majority of their pre-learning on the morning or the day before Workshop 3, most engaged with the materials earlier, typically around a week in advance.

In Workshop 4, engagement was more mixed, with a greater proportion of participants completing the pre-learning closer to the session, likely contributing to lower completion rates for that session (see Fig. 6).

3.3.1.1 Time and workload

To understand some of the issues that people might encounter in completing the pre-learning materials, participants were asked to rate how easy/difficult it was to find the time and space to effectively engage with the pre-learning content over the first three workshops. Their responses are summarised in Fig. 9.

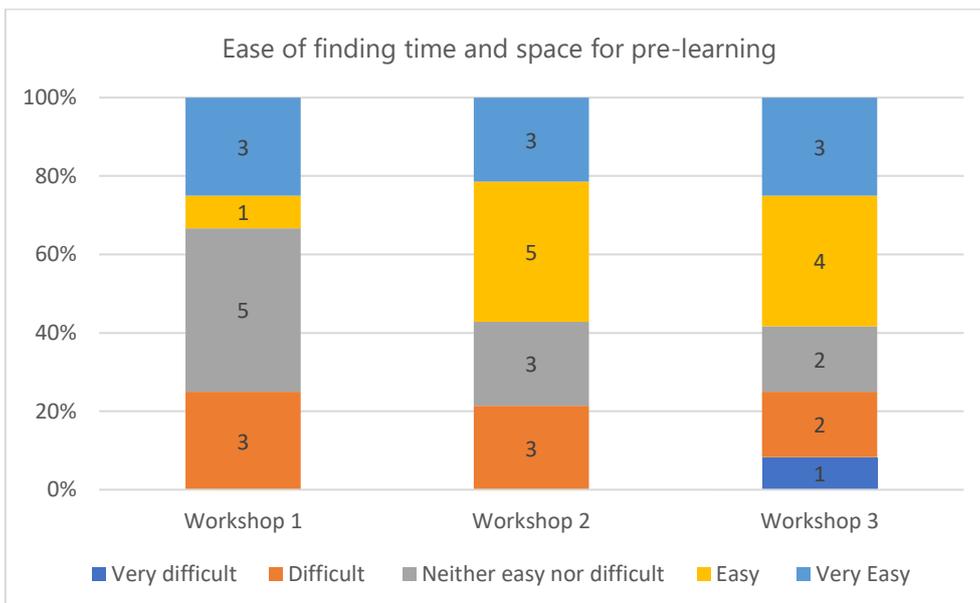


Figure 9

In Workshop 1, most participants reported finding time to engage with the pre-learning materials neither easy nor difficult, suggesting that they found the work broadly manageable to fit into their personal and professional

lives, while a further 4 respondents reported finding it easy/very easy. Time constraints are therefore unlikely to have been the main factor behind some participants not completing all of the activities that week.

By Workshop 2, more participants indicated that they found it “easy” to find the time to engage with the pre-learning and fewer remained neutral, a pattern that remained broadly consistent in workshop 3, and which may help explain why a greater number of participants completed all of the tasks for these sessions (see Fig. 6). It is, however, notable that one participant indicated that they were finding it “very difficult” to find the time and space needed to engage with this work following the third session. Furthermore, as discussed further in section 3.8.3, some participants noted that workload pressures sometimes limited the time and timing of their engagement with the pre-learning activities.

Always work to do and time for course means no time to progress work, although I have a lot of control of my schedule

Work commitments –had to finish the Miro board task on the day of the course

Time is always an issue so am always grateful that the sessions don't start until 10 to allow the work to be done before

One interviewee reflected that struggling to protect time for pre-learning became a valuable lesson in the need to actively safeguard time and strengthen self-management skills as a developing researcher:

Even though it was kind of agreed with my manager, I'll book it in the diary at work and then inevitably something else will just come up and it becomes half a day or just a few hours or I'll just end up kind of doing it in the evening in my own time. I guess it's just been tricky to secure that time. It's probably partly me saying no, I need to block that day [...] So I think that's probably just learning for me is to protect it [...] I think it's just self-management and I think in a way that's a big lesson for the whole aspect of engaging in research, isn't it? (P2)

Another participant noted that their personal caring commitments, combined with the loss of the additional study day due to changes in their current academic programme, had negatively affected the time they could devote to the pre-learning materials. One added that, in discussion with their mentor, they felt allocating an extra full day for study was “too much” given their work commitments and the impact it would have on their energy levels.

Some of the interviews also provided insight into the factors influencing when participants chose to complete their pre-learning. One participant preferred completing the pre-learning a week before the workshop, as this allowed sufficient time to prepare, though they noted this was not always possible:

It's easier to block off the week before to sort of have a look and do your work and make sure that you're prepared for the session in, so I've always usually tended to do it the week before and block off a few hours here and a few hours there from that. I've never taken a full day though [...] I mean, there have been times where I've sort of rushed the day before, the night before, to have a look and refresh myself, but the week before tends to work better for me (P7)

Similarly, another participant explained:

I'll do it on the week leading up to the Thursday. So yeah, like I say, I've got the time in the morning as well, I've got the 2 1/2 hours in the morning that I've also got time to do it if I've not been able to slot in that week, and generally that is enough. But I like to try and do it before so then I've got a bit of time to get anything else I want to and refresh or more what we're doing it all do my essay on my presentation (P8)

One participant explained that doing it the week before helped to ensure they didn't "forget" the learning before the session, and then did a "quick refresh a couple of days before" (P1).

Although all respondents agreed that they had the necessary information and materials in advance of the online sessions, some people also suggested that releasing the pre-learning materials earlier would give them more to complete the work.

After Workshop 2, one participant noted that the materials were only released a week in advance, limiting the time available for engagement. Additionally, one participant reported technical issues in the second session that further affected their ability to access the materials on time. Following the fourth workshop, one participant suggested:

Would prefer pre learning materials being available as soon as previous sessions finish. With workload and if away on holiday it's hard to fit in

One interviewee suggested that releasing pre-learning materials earlier would help participants manage their time more effectively:

I think it's been difficult for me to fit the time in to do some of the pre-reading. It can be a bit hit and miss and I know like at one they only released the pre-reading 2 weeks before and that was difficult for me at one point because I had some time like 3 weeks before that I could have done it and then I was really busy before the next session. So, I guess timing is a little bit of an issue (P2)

Two participants also left comments to this effect in the post-programme evaluation:

The resources for the next session would have been better being available sooner,

I wish I'd had more time to really delve into the resources but they always seemed to be available too late. I feel if they were available straight after the session, I'd have been enthusiastic and got into them immediately

Expanding on this, one interviewee suggested releasing pre-learning materials immediately after each workshop to build on momentum, promote deeper engagement, and better accommodate individual preferences and availability:

I do it in the morning, sometimes, if I get a chance, maybe a couple of days before. But that's my kind of day doing InRes and it doesn't really cross my mind the rest of the time. So, if the stuff was available after the previous session, I'd probably go straight into doing it because I'm already in that mode [...] because of the way I focus, I'm like, oh, I'm in the mood now, let me do some more, but then we don't get it till two weeks after [...] I think that getting the learning materials part way through the last and the next session for me hasn't worked because I'm not in InRes mode at that time. And I don't necessarily have any study time at that point [...] doing it on the morning, it's all a bit rushed because you're like, oh God, have I done enough and am I going to be able to engage in the sessions? [...] I think I probably just do the essential bits (P9)

On a slightly different note, one participant highlighted the value of being able to access all these materials on Canvas throughout the duration of the programme, helping them to "catch up" if they missed a session. To this end, they also suggested making recordings of the online sessions available.

Some facilitators also emphasised the importance of uploading the pre-learning materials well in advance to enable meaningful engagement and to support participation in the online sessions. In addition, one facilitator noted that more information could have been provided before the induction. Some also reflected on whether it

mattered if some participants chose to complete tasks on the morning of the workshop, noting that this could suit certain learning preferences and help keep the material “fresh.” However, most felt this approach limited opportunities for deeper engagement and reflection. They also considered whether the flipped learning model effectively accommodated different learning needs, with suggestions made to introduce greater flexibility in the timing of tasks. For instance, it was proposed that some activities could be completed post-session by those who prefer to engage with new material in a collaborative setting, while others could be retained as pre-session tasks for participants who favour independent exploration of new topics. However, facilitators noted that such flexibility could complicate session design, as it risks uneven levels of preparation amongst participants.

Some interview participants also explored the idea that requiring the submission of certain pre-learning tasks for review could increase accountability for completing this work. One participant extended this point to assignments, suggesting that the lack of formal accreditation reduced their motivation to fully engage (see also 3.3.3):

I've probably not allowed myself enough time to do what I needed, but to be honest that I think the fact that even though we've got assignments and stuff, it doesn't count as such. It's not validated, is it? So, for me that kind of makes a little bit of difference that I'm not throwing myself into it at the same level because you've not got to get that mark, you know, I want to get this qualification at the end of it [...] You don't come away with any credits like it's taught at master's level for however many credits, but you don't get any credits because it's a pilot. So, I think that if I felt that I was going to get something out of it at the end of it, I'd probably put more effort into the assignments. But because I know it's not accredited, I'll probably throw them together in the last week rather than really engaging with it. I will definitely do them, but I do think that it not being accredited or whatever the right word is for that will make a difference to how much effort I put into the actual assignments (P9)

However, one participant cautioned that overly demanding tasks might create an additional barrier to engagement with the pre-learning, particularly for those with inflexible and demanding professional and and/or educational commitments:

That's nothing that the facilitators could affect, really, they do remind everyone to do the pre-course materials, but people aren't doing them. It can't really be on the facilitators [...] I suppose it's about finding the balance between making people accountable enough that they need to do the learning without it seeming like it's going to be this massive piece, because I think that would be probably a barrier to people in clinical roles getting involved with the course if there was the expectation that they're going to be doing all this extra writing [...] there's people that are on the course that are doing Masters and PhDs and things like that alongside doing the course [...] So I think for them having the expectation that they might be doing more academic writing on the side of what they're doing at the minute, I don't know whether that would be a bit of a barrier (P5)

Relatedly, facilitators also discussed other mechanisms to increase accountability for engaging with the pre-learning. Some suggested incorporating short, low-burden assignments that could be used to gauge progress, noting the positive response to complete and submit the MBTI assessments. Some also proposed encouraging more participants to share reflections on platforms such as Miro to make the pre-learning engagement more visible. At the same time, they questioned how far participants, as adult learners, should be expected to take ownership of their learning without additional monitoring requirements.

3.3.1.2 Volume and cognitive demand

To further probe potential barriers to effectively engaging with the pre-learning materials, participants were asked whether the overall volume of pre-learning was manageable (see Fig. 10)

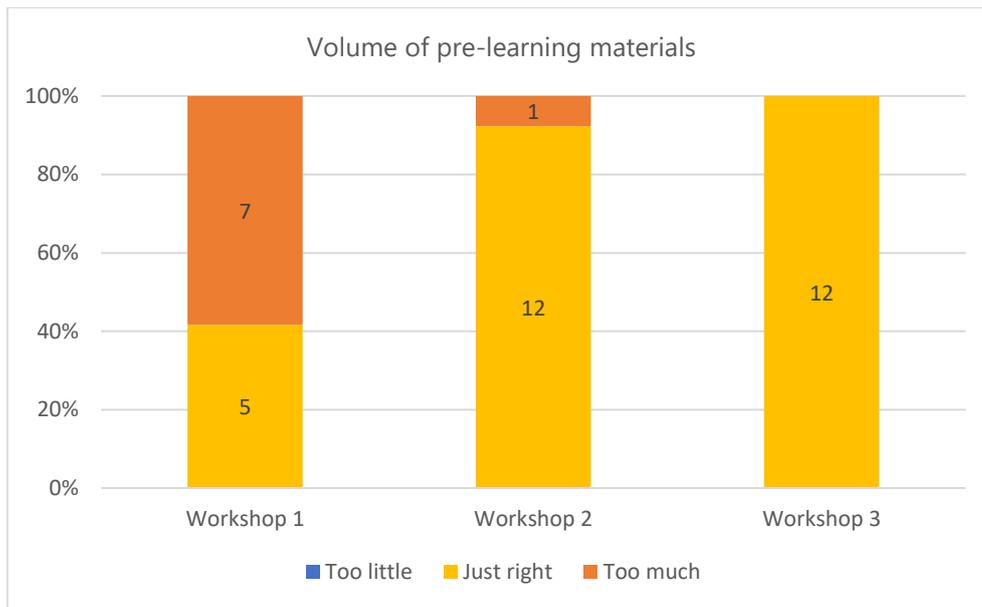


Figure 10

Many participants viewed the quantity of pre-learning for the first workshop as “too much,” which likely made it harder to find time the time to effectively engage with the materials and contributed to lower completion rates (see Fig. 6). As one interviewee noted, *“I think the first lot of pre-learning we had felt like quite a lot. But since then, it’s all been OK.”* In the post-workshop feedback from the second session, one person observed that the “shorter” pre-learning materials made it easier to engage fully, a shift that is likely reflected in both the higher completion rates and the greater ease participants reported in finding time to do the work (see 3.3.1.1).

The comprehensibility of the pre-learning materials was also raised by the delivery team as a potential barrier to behavioural engagement with this aspect of the course. This concern was echoed in post-programme feedback, where one participant reflected that the initial pre-reading was difficult to follow due to unfamiliar research terminology:

In the pre-reading for session 1 perhaps some quotes from past delegates [would have helped] with the lack of clarity due to the research jargon at the start, which left some feeling uncertain and possibly out of their depth

To explore this further, participants were asked how “understandable” they found the pre-learning resources for the third and fourth workshops (see Fig. 11).

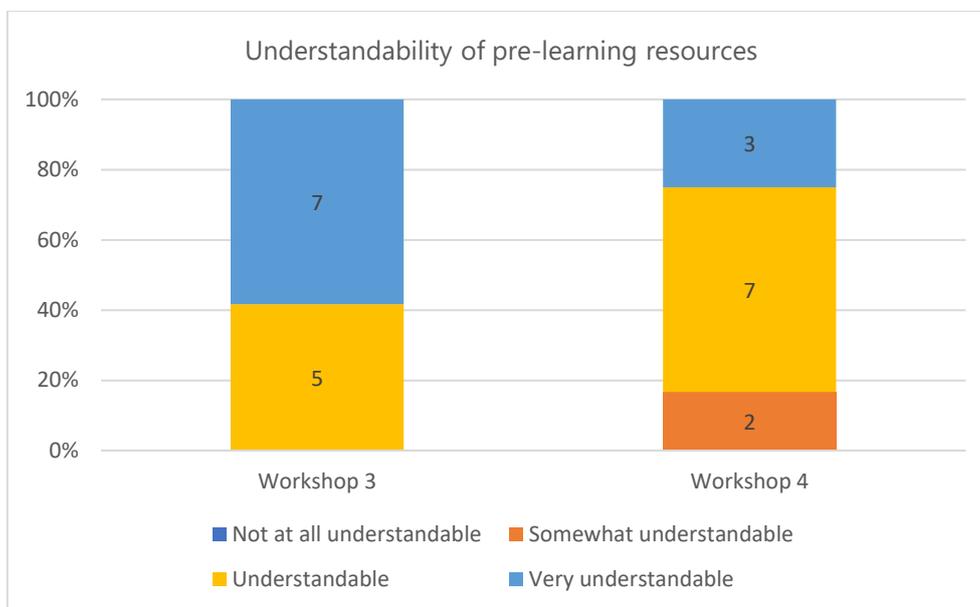


Figure 11

In Workshop 3, all respondents rated the pre-learning materials as *understandable* (5) or *very understandable* (7). One of the facilitators rated participants' understanding of the materials as "good" based on being able to assess this "to some extent" during the online session.

In Workshop 4, most respondents rated the pre-learning materials as *understandable* (7), with a further three describing them as *very understandable*. However, two participants rated the materials as only *somewhat understandable*. At the end of this session, two facilitators judged participants' understanding as "fair," but indicated that they were only able to assess comprehension during the session "to a small extent". One interviewee also noted that the pre-reading for this workshop was especially "complex" and introduced many unfamiliar concepts. The perceived complexity of the materials in Workshop 4 may have partially contributed to the decline in pre-learning completion observed at this stage (see Fig. 6).

One participant reflected that it was the volume of the pre-learning *reading* materials and the degree of cognitive engagement required that negatively impacted their ability to complete all of the pre-learning tasks:

It was just the reading tasks—there was a lot of content. I managed to scan read them but not review them in depth. They look like good and interesting resources though and I will definitely make time to read them fully

Similarly, another respondent noted difficulties in "*prioritising time to intensively read not superficially read through the materials*"

An interviewee also described how the volume of reading and the level of cognitive effort required influenced their engagement with the pre-learning, noting that the time needed for in-depth reading often led them to skim through the materials:

To intensely go through it, I've only done that about like maybe just three times out of all the sessions we've had, but like the rest of them, I just breeze through them just so that I have an idea of what we're going to be talking about next so I'm not clueless. But sometimes I just feel like there's so much to read, but it helps me, because the first one they gave us to go back to read an article, I did, and I just felt like because I stopped reading books, so I'm like this is a lot for me to read. So, I couldn't understand it, it was too much, so it made me like buy books again to start reading to get myself back into that reading mode. So, it did help me to go back to reading again, but initially I was like, it's a lot to read [...] It is time because that

much to read, you need time to, like [...] you have to really find time to sit down. I like to write and make notes of what I'm reading. So, for something like that, I really need to understand what I'm reading and so that's a lot of time [...] I enjoy the videos more than the reading. So, I just try to watch the videos on what they're saying and because maybe everyone has different learning styles maybe they stick more to me than like the readings. I try to complete them all. I complete them all except the reading part. Sometimes what I do with the reading part because they're too long. I try to read through it, copy it, and then get AI to summarise it for me so I can understand what the concept is then I go back to it. I read through it, but I just felt like maybe I needed more time to understand it (P3)

This quote also highlights that, having been out of practice with academic reading, the participant found the reading tasks particularly demanding. In contrast, they described video-based materials as more accessible for their learning style and quicker to work through, which made them more likely to engage with those elements of the pre-learning.

Similarly, another participant how their learning style and limited recent experience with academic materials made the reading and writing tasks particularly challenging, creating a barrier to their behavioural engagement with the pre-learning:

I think with some of the materials where it was more reading heavy, I found it quite hard. It took me a little bit longer, but that's just more my learning style. If it's something that's quiet and like reading a protocol for example, it can be quite dry sometimes, so it's taking me a bit of time to absorb it, but that's sort of the way I process information more than the quality of the materials [...] it's the academic sort of writing that's novel because I've not had to do it for a few years other than doing the occasional abstract for a conference, which is also off putting (P5)

However, this participant went onto explain that given the workshops did not demand full mastery of the pre-learning materials in advance, this made the work feel more accessible (see also 3.6).

I was worried that when the pre-learning was first proposed that it would be very much like you need to do the pre-learning to understand the topic before we do the session [...]but] I don't need to understand everything [...] it made it a bit easier for me to access (P5)

They also contrasted the challenges associated with reading with the accessibility of other forms of pre-learning, such as short, action-oriented reflective tasks and videos that supported their behavioural and cognitive engagement:

It's been quite good and some of the activities they've not been too sort of heavy in terms of well, here's your pre learning, here's the actual action we need you to take from that pre-learning. It's been good because it's not been like an essay every week. It's just been updating the Miro board with your thoughts on a particular thing. I was worried that it might be a bit sort of stressful trying to get your homework done in time, but it's not been like that [...] The content of materials, they have been quite varied in terms of the pre learning stuff. There's been a good mix of videos as well, which has been quite good [...] there was a Ted talk around [vulnerability] which was really interesting, and I found that really accessible (P5)

A third interviewee echoed this view, adding that their preference for video-based materials and the difficulty they experienced with reading longer texts on screen also influenced how and when they engaged with the pre-learning:

I think some of the longer journals I've probably missed. So, some of it's been a bit hit and miss if I've done the reading, but I have watched all the videos because I think they're quite easy to put on. I don't read from

a screen very well. So, I think some of the longer journals I would have much rather printed. And again, that's probably me checking what they are and printing them off rather than just trying to cram it in the night before. Sometimes I've been organised and I've done it like a week before. Sometimes it's been, you know, a couple of hours in the morning before the session (P2)

Similarly, one interviewee reflected on how the “do” activities and videos supported their preferred way of learning, noting that the heavier reading materials demanded greater cognitive effort and were therefore more challenging for them to complete:

“There’s a special button there called ‘do’ in the materials, and that’s the one I like the most. It’s probably sums me up the best. Just go to that. Press on the button [...] videos [are] also quite useful, because if you’re reading a lot [...] then it can be a bit troublesome, especially for me, I don’t particularly – well, I do like reading and getting into subjects but I can find it a bit difficult when it’s heavy, difficult concepts [...] The difficult to read stuff can be challenging (P10)

Facilitators also picked up on some of these concerns and discussed the need to reduce the volume and complexity of the early pre-learning materials to focus on quality over quantity with optional further reading to avoid overwhelming participants. They highlighted the importance of introducing unfamiliar concepts gradually, with clear explanations and advised against front-loading too much material given participants’ limited time.

Facilitators also observed that incorporating a diverse range of pre-learning materials and activities, including practical “doing” tasks and visual resources, enhanced participant engagement. In addition, some facilitators highlighted the importance of considering participants’ varying levels of research experience and academic confidence when designing both pre-learning and workshop content. One facilitator suggested differentiating tasks accordingly, for example, offering a more basic overview of research paradigms with clearer explanations and illustrative case studies for those newer to the topic, alongside optional advanced resources for participants wishing to explore concepts in greater depth. Others recommended including more structured reflective questions in the pre-learning to prompt engagement and support the development of critical thinking skills (see 3.6.4).

3.3.1.3 Connection to workshops

Engagement with pre-learning was also understood to be influenced by whether participants perceived the preparatory resources as sufficiently connected with and relevant to subsequent workshop sessions. In the first session, this link was evident for the majority of participants, with 5 of the 12 respondents to the post-workshop evaluation rating the connection between the pre-learning materials and the online session as “very clear,” and another four rating it as “extremely clear”. These respondents also agreed that the pre-learning had helped them feel prepared to engage in the online workshop, five of whom strongly agreed.

Three participants, however, rated the connection between the pre-learning and the first workshop as only “somewhat clear” and gave a neutral response regarding whether the materials had helped them feel ready for the synchronous work. Two of these attributed their lower ratings to not having read the materials in sufficient detail, however one participant commented that they “didn’t feel there was much [...] reference to the pre-reading” to support “critical debate” in the online discussions (see 3.6.4). Facilitator feedback from this session also pointed to the need for more explicit connections to be made between the pre-reading and the workshop content.

Over the next two sessions, participants were asked to indicate how relevant they found the pre-learning materials to the online workshop (see Fig. 12).

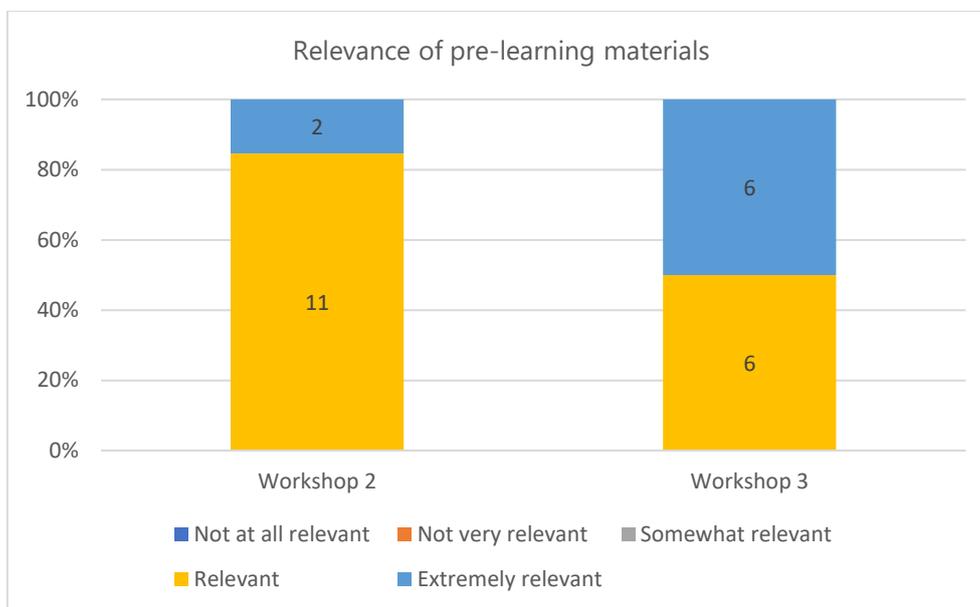


Figure 12

In Workshop 2, the majority of respondents rated the pre-learning materials as *relevant*, with a further two describing them as *extremely relevant*. By Workshop 3, the proportion rating the materials as *extremely relevant* increased. Whilst the increase in completion rates over this period (see Fig. 6) may reflect participants' retrospective perceptions of the usefulness of the Workshop 2 pre-learning, it is perhaps more likely that the requirement to complete and submit an MBTI questionnaire in advance of the third session contributed to the higher completion rates and the stronger relevance ratings reported for Workshop 3. The subsequent decline in completion rates for Workshop 4 suggests that other factors, particularly comprehensibility and cognitive demand played a stronger role in shaping whether participants engaged fully with the pre-learning materials for this session.

Participant explanations highlighted the ways in which pre-learning was experienced as relevant, most often by fostering a sense of preparedness for the online sessions. One person described it primarily in terms of familiarising themselves with new concepts:

"It's more about sort of demonstrating that you've understood the rough idea of what's going to be discussed in the session [...] like with research paradigms it was just about sort of desensitising you to the terms that were going to be used and the idea of discussing research paradigms rather than saying you need to understand everything (P5)

Another talked more about relevance in terms of mental readiness for the online sessions:

I do appreciate all the pre reading, the work that we have to do before really helps to sort of get you in the head space ready for the session (P7)

The latter participant went onto describe how the pre-learning provided the time and space to digest information at their own pace, which in turn enabled them to participate more effectively in the workshops:

think they're [pre learning materials] are really good. I know that I'm probably slow to digest information and I having had that pre reading and the insight into what we're going to be discussing in the session has helped me prepare and help me sort of slowly introduce myself into sort of subjects rather than I think if it was on the day and I hadn't had any pre-reading and pre-work to do, I'd have been 'Oh my God' .I don't think I would have found it [the workshop] as useful as I have, so I think it for one it helps me to be able to digest the information slowly and go back to it if I want to. I can reflect on it and I think that gives me that

time to actually do some of the work for myself in my own time, rather than actually thinking on my feet in a session. And I think that's really valuable, but especially the way that I learn, it's been a valuable process for me to have that in there (P7)

Several participants said that seeing the pre-learning as preparation for the online sessions motivated them to complete it:

"it's given me a bit of incentive to make sure I get it done really rather than just being like a token thing that you can dip in and out of [...] it's just giving you like the foundation to better engage with the learning of the actual session which I found once I got my head around that I was like, alright, OK, it made it easier to go "well, yeah, if I do the pre-learning, I'm going to get more out of the actual session" (P5)

Another interviewee made a similar observation:

I hate doing stuff like that [pre-learning] when there's no relevance. What's the point in doing a pre reading that then you never touch on again and it never gets discussed or it's not relevant to the subject? [...] A lot of the stuff that is in the pre reading has then been relevant to the session which gives it then meaning to actually do it. Because if you don't do it, then you feel like you're actually behind [...] Some of them, it's just a bit of an insight into what you're going to be learning about. Some of the pre learning has been quite pivotal to what we've been doing on some of the sessions. And some of them have been a little bit less relevant [...] there hasn't really been anything that's not been relevant [...] that will have been like an hour, an hour and half slot on the session. So, if you've not done it, then you've essentially messed up the first hour of your day [...] The personality survey thing, when we did that, if you haven't done that, then you wouldn't have got it sent in the post and sent the PDF. It will then have made the session very difficult for you. (P8)

These findings suggests that clear links between preparatory resources and workshop content supported emotional engagement by fostering a sense of readiness to participate more fully in other aspects of the course. In addition, these quotes highlight how some participants recognised the importance of personal effort and ownership in engaging with the pre-learning to maximise the value of the online workshops. One participant, for example, described revisiting pre-learning materials and additional resources after a session they expected, and ultimately found to be, cognitively challenging (see 3.6). Whilst most interviewees reported that they did not tend to revisit the materials once a session was complete, this participant described how it helped them to deepen their cognitive engagement with the material:

I found the research paradigms in that session quite challenging. So, I actually read those and had a look. I probably did that more than once before we had the session as well because I knew it was subject I wasn't as comfortable with. So, I think I probably did a bit more work on that than the others. So, I think because we've got that there and we can do it - you only get out what you put in, don't you? So, you've got to put the effort into actually develop and learn yourself and be open to doing that (P7)

Another interviewee echoed this view, describing the pre-learning as a foundation that enhanced their engagement in the workshops and supported a deeper, self-directed approach to learning:

"What are we doing this week in terms of when I get to this workshop, if I've already done this pre-work then it would enhance all the other aspects of what I'm about to learn [...] I've just been preparing for the assignment and reflections all about the learner. Really, you get out of it what you put into it [...] I'm the sort of person that will not delve into a subject lightly. I'll go deep into a subject and find out more about it. Some of them will not interest me and I might come back to them and try them again" (P10)

Similarly, another interviewee emphasised a clear connection between the pre-learning and the online sessions, explaining that this link, combined with their motivation to come prepared, encouraged them to complete the pre-learning in order to get the most out of the workshops:

It might be that I did the reading and maybe did a bit more because I enjoyed it or I really thought about what I was going to bring to the sessions, practically-wise [...] I'm sure like the first part of the morning is all about perhaps something that we read and what we thought and you upload it to the Miro board [...] I like to do the homework, I like to feel prepared. I like to be able to tell myself that I'm going to get the best out of this, that I can do, so I will, unless it's been a really unpredictable week at work [...] I've pretty much always done it (P6)

One participant simply reflected that there was an “appropriate” connection between the pre-learning content and the online workshops, without “much duplication” that supported their engagement in this work (P2). Yet, for one interviewee, the fact that the pre-learning was “discussed” in the session meant they did not feel the pressure to ensure that they had engaged with the material in depth beforehand.

Beyond preparedness, participants also understood relevance in terms of the extent to which the workshops built on the pre-learning materials, extending their thinking and prompting new insights. As one participant explained, this was achieved not by simply repeating the pre-learning content, but by expanding on it through comparison and discussion:

There's definitely some crossover [between the pre-learning and the online content] But I found that useful anyway, because if it was a case of 'you've done the pre learning, we don't need to go over it at all'. I'd struggle there. It's certainly not been a case of going over everything and it's been kind of sort of expanding on what you've heard. For some of the sessions, it's just been about sort of comparing, contrasting the ideas that you've read about and things like that, which has helped me get a better overall view of a particular topic. No complaints there, it's pitched right for me (P5)

However, some facilitators expressed ongoing concerns that the workshops offered too few opportunities for participants to deepen their cognitive engagement with the pre-learning materials. To explore this issue further, participants in Sessions 3 and 4 were asked to what extent the online workshops had built on and expanded their thinking from the pre-learning.

In the third session, 5 of 12 respondents felt the online workshop built on the pre-learning “to some extent,” whilst 7 said it did so “to a great extent.” Facilitators were less positive, with one agreeing that it did so “to some extent,” while another felt the links between pre-learning and session content were weak and needed strengthening.

In the fourth session, 5 out of 9 respondents reported that the online workshop had built on and expanded their thinking from the pre-learning materials to a large extent, and one to a very large extent. One participant commented that reflecting on the pre-work and how this connected to research had been a particularly valuable part of the workshop. However, two respondents felt the workshop had only built on the pre-learning materials “to some extent”, and one “to a low extent”. Facilitator views were similarly cautious, again noting that clearer and more deliberate integration of pre-learning content into the live session was still required.

Although, overall, most participants generally perceived the workshops as building on their preparatory work and extending their understanding, some echoed the facilitators concerns. One participant, for example, felt that the pre-learning materials, particularly the reading, were used mainly to provide background knowledge rather than being developed and built upon in the online session. This perceived lack of relevance undermined their behavioural engagement by reducing their incentive to complete the activities:

I just noticed that even with the pre learning, we rarely go back to it even in the classes. We don't really go back to make reference to the pre-learning that much. I've noticed that it's only a few times that the articles that we've read, we've had to talk about. Most times I don't really relate to them during the classes because it felt like the classes are just like explaining why they've asked us to go and read it, but I just feel like sometimes maybe they can bring it up, like teach us what we've learned [...] I just thought they were going to use what we've read to explain, but it's obvious that they just use that to prepare us for the class to have a background knowledge [...] I think it would just be better if whatever they'll be using to teach us that would be on the pre learning so you read them and then when they're teaching you can actually pick from what you've understood and what they're explaining [...] I think that's what the pre-learning is basically, just having knowledge of what will be happening or what they will be teaching in the next class. I just felt like they should be like more related or make reference to it in some ways [...] if every class we went back to the pre learning to say "what have we learned from the pre learning?" I think that would make people go back to reading, go through the pre learning, because nobody would want to not have anything to say or to contribute (P3)

Another interviewee expressed similar frustrations, noting a mismatch between the more in-depth pre-reading materials and the basic level of discussion in the sessions. They felt this lack of alignment limited opportunities for deeper cognitive engagement with the material and led to a gradual decline in their motivation to complete the pre-learning:

It felt like there was all this pre-reading, which was interesting, but then in the sessions it was like we were just discussing some really basic terms, like the second to last one was about teams and it was 4 hours talking about what makes a good team, what is a team, what experiences have you had of a good team or a bad team and it just felt like there was good reading, so if we could be learning stuff about like the literature and thinking a bit more critically and in depth and academically, but it just was kind of stripped back and I don't know whether that was to make the learning like easier maybe [...] and then when I realised that we don't really touch on it loads throughout the sessions, I was less interested about doing the kind of pre-work, I felt my like interest levels dipped and me prioritising doing that work and really getting into it just kind of dipped. For example, when we did the session on like epistemology, the reading was really interesting. It was quite a difficult read because it is a complicated subject and I felt we briefly kind of went into it, but it would have been great if they actually taught us what we read, because my opinion is if you do some pre-learning that what you've done there you're going to do in the session. So, it's just kind of to give you a bit of a head start on what we're going to be learning, but it was kind of straightaway applying that when again they could have gone deeper with it [...] Sometimes there is that kind of disconnection from what we were pre learning and then what we were doing [...] I wouldn't really set loads of time out for it [the pre-learning]. Whatever I could do the hour before the session is kind of what I'd do in the end. But before, I'd like set time aside and get engaged and even read the further reading resources. And then once I started to see that it wasn't really being applied or there wasn't that connection, I just kind of lost interest because I was like well, I don't know the point of doing that is, if it's not connected. I understand it's for my learning, but I think I can't just learn by reading articles (P4)

A third interviewee echoed this view leading them to question the value and lasting impact of engaging with these materials:

It just feels like maybe what we've covered in the sessions hasn't really expanded much further than what I've already read [in the pre-learning] other than hearing other people's perspectives [...] I guess if we're going to cover it in the session, maybe don't set it as pre-learning or if there's pre learning material, something new to be introduced in the session that builds on that [...] I think sometimes I've come away

thinking I don't actually know what I've gained from that or like the month after I've just actually totally forgotten it (P1)

One facilitator stressed that extending and expanding on the pre-learning during online sessions was essential for creating a gradual layering of knowledge and maintaining a coherent 'golden thread' through the programme. More broadly, facilitators agreed that additional strategies were needed to support this process, noting the difficulty of gauging the depth of participants' engagement with the pre-learning, with more time needed for exploration and discussion during the online session. Given the variation in the depth of engagement with the pre-learning across the cohort, some facilitators also considered ways of differentiating the sessions so that those with different levels of preparation could still participate fully and progress together.

3.3.2 Online session participation

Although detailed evidence of participants' behaviours in the live workshops was not captured, behavioural engagement may nevertheless be considered in relation to contributions to group discussions (see 3.4), facilitators' initial informal observations of attentiveness and participation, as well as participants' attendance and adherence to agreed norms.

Facilitators reported strong behavioural engagement during the induction and the first two sessions, noting full attendance, punctual start times, and active completion of the individual tasks. However, facilitators raised concerns about limited verbal contributions during whole-group discussions (see 3.4), although one cautioned that a "quiet" group should not be seen as disengaged. For instance, one participant described how their behavioural and cognitive engagement was supported through note-taking, an activity largely invisible to facilitators:

I always make notes during the classes because I feel like you can easily forget. So, one of the reasons why I made notes was for my reflection purpose, so I can go back to it and it would remind me of what happened in that class [...] I kept note of everything - the topic for each session. Everything that was done in that session, what we were asked to reflect on, so everything is down in my notes because I would need it in to write my portfolio and, in my reflection, [...] even my pre learning I write what I learnt from each pre learning [...] even some of the coaching session I would write down things - just things that you can make reference to I like to write down things because then you can go back to them once in a while and make reference to them (P3)

Adherence to agreed norms was also reported positively. In the first session, 10 out of 12 respondents agreed that clear ground rules had been established, 8 of whom strongly agreed and two respondents providing a neutral response. Suggestions for improvement included circulating a formal copy of the ground rules and clarifying expectations regarding confidentiality for those joining from shared workspaces (see 3.8.2). Facilitators also noted positively that participants did not speak over one another during the induction.

In the second session, 11 of 12 participants reported that the both participants and facilitators adhered to the online working ground rules, with just one respondent indicating that this was only the case "to some extent."

In the third session, the only issue raised in relation to ground-rule adherence was the difficulty of ignoring work distractions, particularly emails. One participant noted that facilitators' reminders not to check emails helped them follow this rule by easing the guilt of setting aside work demands:

I've really appreciated the emphasis on not checking work emails even in breaks and stuff [...] I think those sort of reminders and the real push to not feel guilty about not doing other work on a course day has been really good for me because I think naturally like even if I'm on other learning courses or have been part of like webinars or out at conferences and stuff like that, naturally, I'll feel guilty for not checking my other

work that's going on [...] So I think that's been really good, but that's probably the biggest barrier, isn't it for people? Is that when you're doing the online courses, your other work is there? I suppose it's down to people on the course themselves for being a bit strict and saying I'm not going to engage with it. I'm not going to access it [...] and I think for the coaching sessions too that message has been kind of emphasised that this is a time to disengage from your other work and just focus on the coaching sessions [...] Those reminders have been really good and I think it's just helped in terms of knowing that you've got that backing from the people delivering the course that you're doing this for a reason And it's kind of helped get over that guilt a little bit (P5)

While detailed attendance records were not collected as part of the evaluation, the programme leader confirmed that there was no attrition over the course of the programme.

3.3.2.1 Active learning

Another important aspect of behavioural engagement concerned participants' experiences of active learning within the workshops. Active learning was a central design feature of the programme, with particular emphasis on creating opportunities for participants to interact with one another as part of the learning process (see 3.4). Feedback from the first two sessions indicated consistently high levels of perceived interactivity (see Fig. 13).

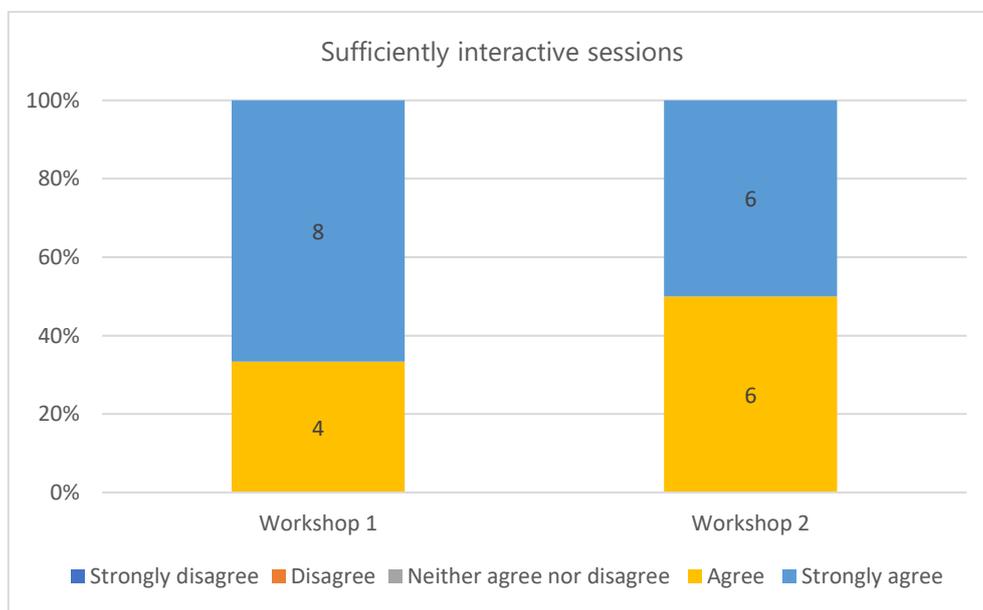


Figure 13

In line with this, all participants agreed or strongly agreed that they had sufficient opportunities to ask questions across the initial workshops, further indicating that the course design effectively supported this aspect of behavioural engagement (see Fig. 14)

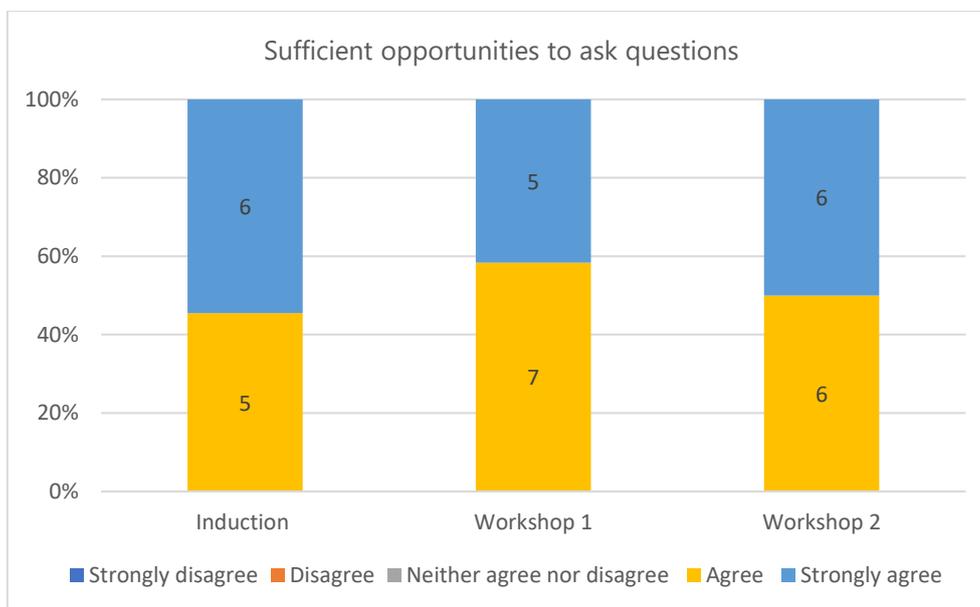


Figure 14

Looking at a specific mechanism used by facilitators to support interactivity, participants were asked in the post-session evaluations of Workshops 2 and 3 about the usefulness of the red and green cards for participation and immediate feedback (see Fig. 15).

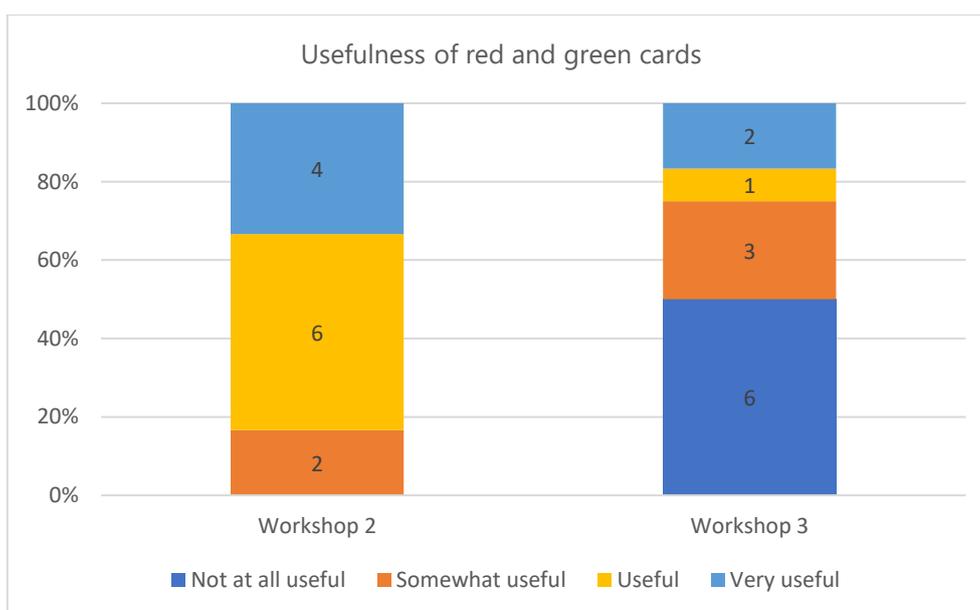


Figure 15

Whilst these cards were initially received positively, positive perceptions declined markedly by Workshop 3, with most participants rating them as 'not at all useful,' indicating the limited effectiveness of this approach in sustaining behavioural engagement. Furthermore, one participant noted difficulties with viewing all participants' video feeds for this method to work effectively and facilitator feedback also noted its limitations for gauging cognitive engagement.

Overall, however, participant and facilitator feedback highlighted the value of the interactive elements of the course in sustaining behavioural and emotional engagement, as well as deepening cognitive engagement. As one participant explained:

The word research you always expect it to be a bit dull, a bit boring and what am I going to need to know? Is my brain as highly functioning as it should be for this? And especially when you've done research modules at university and they've been really quite boring, but the team have made them really interesting. Really interactive [...] They've almost brought certain subjects to life and it's been really, really beneficial to join in and get insights to all areas of research because there's such a broad spectrum of people that are also on the course. So, it's been great having that interaction with colleagues as well across the areas [...] I always find it challenging when we're doing interactive sessions, but I think that's just my personality [...] however, if I hadn't had those interactions and we hadn't done breakout rooms and they hadn't done the Miro board, I think I would have found it a bit flat and boring [...] I'm a visual learner so I think it's challenged me, the fact that we do all the interactive stuff, I think it means that you take out of the course more than you would have if you had just sat there and listened (P7)

Another interviewee added:

I definitely think it's worked in terms of I've still got loads out of it [...] it's been engaging enough that it's not felt like I've just joined a webinar and ignored half of it (P5)

One participant's comments reinforced this point by illustrating how sessions that lacked sufficient interactivity made it harder to sustain energy and engagement, particularly in an online environment where distractions were close at hand:

With that session I was saying I didn't particularly enjoy as much [...] it was brilliant. But because it was sitting there and he's got a very calming, relaxing voice. And it's on Teams. You're not engaging like face to face with people [...] It becomes a moment of 'do I pick my phone up or do a look at my emails?' Your attention goes elsewhere (P8)

Other post-programme comments also emphasised how the diversity of activities and the creative stance taken across different topics helped sustain their interest and engagement:

Facilitators and the course format was great. Really enjoyed the variety of activities and the creative stance we took for certain topics

It's not just been death by PowerPoint all the time. Or conversely, it's not just been we're just going to do focus groups all day. It's been quite a nice a nice mix really

There were plenty opportunities to engage within the course, it wasn't just listening..... All in all, I think for a fully online course it was run very well with a good mix of ways to interact.

Another person noted in the post-session feedback that the "interactive" activities had helped support cognitive engagement with the "theoretical topics", although one participant had an opposing view (see 3.6).

Indeed, in the third session, all respondents agreed that there was a sufficiently diverse range of activities, 4 of whom strongly agreed. One participant noted that this diversity catered to different learning styles and supported interaction in a way similar to a face-to-face programme:

Utilising all the tools that are available and the different ways that we can learn, they've got it down really well in this course, I think it's been really, really useful to have the different elements because obviously we're not all the same type of learner and it can be really bland if it's death by PowerPoint [...] I think face to face would be great. But actually, I don't think it would be any better than what they've done because of the way that they've put us in in groups, we've had the Miro board interactions and then we've had a bit of our own space to do a bit of our own reflections as well. I think I think they've really captured the styles of

learning that others probably have, as well as myself, to try and make sure that we all get a bit of what we need out of the course (P7)

Another participant added that the variety of approaches had been particularly valuable in terms of opening up new ways of thinking:

I'm quite a practical person, so hearing some of the different ways of approaching things and the reflective models and things has been quite useful. It made me think out-of-the-box a little bit in ways I wouldn't normally (P9)

However, some participants and facilitators noted an over-reliance on group discussion activities (see 3.4), with one participant adding that the absence of visual resources made it difficult to sustain concentration and attention:

It lacked any presented visual materials, even down to not showing the session learning objectives. As someone with poor attention skills, I feel it was hard to maintain concentration on words alone.

Another noted that the repeated use of the same image-based icebreaker caused the activity to lose its sense of purpose, reducing their emotional and behavioural engagement with this activity:

We've done a few quite abstract, where you look at an image and kind of place yourself on this image, what do you identify yourself with? And we did a few of those back-to-back each session, look at this image, where are you on your research journey? And I was like, well, I'm still where I was at the start. I didn't mind doing it in the first one, but I felt it was a bit unnecessary to repeat that for each session [...] It frustrated me a bit. I'd have used a different medium for an ice breaker into the session and maybe just keep those the images at the start and the end of the course. Or maybe slot one in midway maybe (P2)

This viewpoint was echoed in the post-programme feedback:

Didn't always like the abstract images to "tell us where you are in this image". Need different methods / ice breakers

3.3.2.2 Creative methods

The icebreaker activity was an example of a creative method through which the programme aimed to diversify opportunities for active learning, helping to stimulate behavioural as well as emotional and cognitive engagement.

The value of this approach was reflected in the post-programme evaluation, in which half of the participants (8/16) "strongly agreed" that the creative and playful methods supported their engagement, learning, and development as a researcher and a further 4 "agreed" (see Fig. 16). Only 2 provided a neutral response.

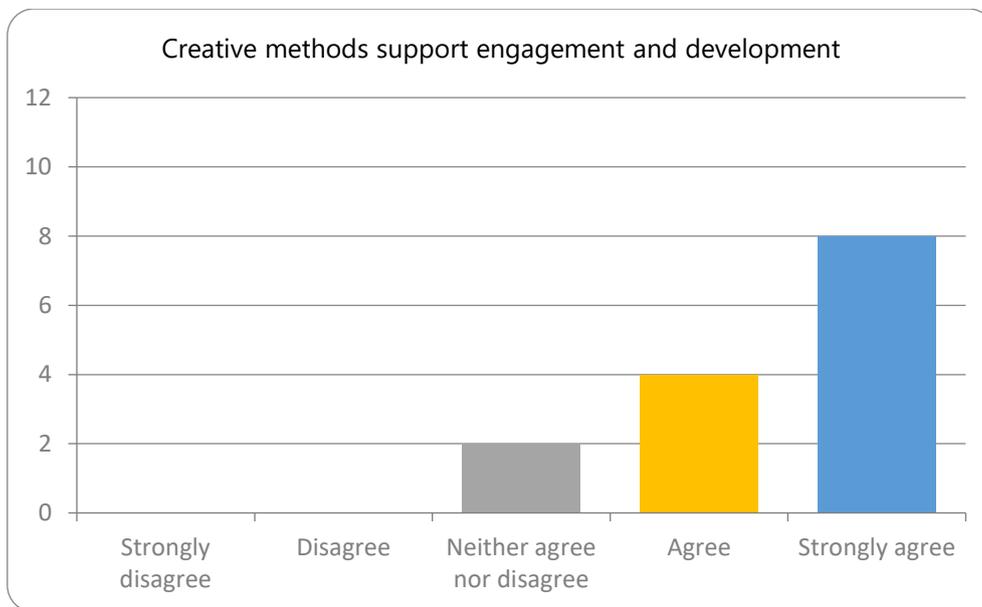


Figure 16

In the qualitative comments against this questionnaire item, some highlighted how the creative methods had helped make the learning more enjoyable and engaging, supporting emotional engagement in the course:

It kept the course fun and heightened engagement

Loved that it was made to be fun and creative. Very different from most university courses. :)

I have found some of the elements very engaging [..] Overall the facilitators have done a great job of making it interesting and creative

Has made conversations easier and it has also helped the course feel less like a series of lectures. At times I can have a terrible attention span so it's really helped keep me focused and engaged

One added that these methods also surfaced capabilities and insights that might otherwise have remained hidden:

I enjoyed the playfulness of experiential learning. sometimes adult learning can be dry and an element of childhood fun can unleash potential and hidden gems from within people.

Several participants and facilitators also pointed to creative activities as being particularly engaging elements of some of the early sessions.

Creative and playful methods helped one participant reframe their mindset and feel less apprehensive about research:

It helped me to lighten up- I have a tendency to be a bit serious and it was good to engage with tutors/facilitators who think out of the box and were more fun

I was avoidant of research and this approach allowed it to seem 'less scary'

Participants also highlighted how these methods supported the development of communication skills and critical thinking (see 3.6.4 and 3.7.4):

This help convey my message clearly in a way others could understand.

Thinking critically, using different models, being open to using different approaches to get messages across, having fun!

One interviewee reflected on how the creative activities challenged them to think differently about how messages are presented and received, recognising the importance of clarity, brevity, and tailoring their approach to different audiences (see 3.7.4):

We can be very stale the way we do it and people don't respond to that. And I used to look at messages on boards and they'd make it so simple, like 3 words. And I would never understand the basis behind it. But now I'm starting to see that the idea is that people don't have much time to look at your idea [...] something's gotta attract them to get them in there. It's a little bit about advertising and understanding different generations and what they'll respond to [...] that's not my forte either, so I needed help (P10)

A number of interviewees also described how the creative activities supported behavioural and emotional engagement through providing an energising change of pace (see 3.2.2):

"I quite like the creative stuff, I want to get involved in that, not just sitting. I like to what other people have done. I quite liked getting some things through the post. Off you go. Figure it out. I know other people made their creative puppets and stuff earlier on in the week, but I did mine in the 45-minute lunch break because it was like that's the task I want to see if I can do it [...] So I quite liked the fun that that allowed me to do because it took me away from the screen. And it was more energising for me to be doing something, and then I could talk about it [...] to be able to do the doing rather than just watch or hear about somebody else. [...]. I think that gives you the break as well, because sometimes there's been a lot of information (P6)

The ones I've enjoyed generally, I don't know if it's just because she's funny and crazy and engaging are Jana's sessions [...] I enjoyed it the other week when they give us a weird little task of making a finger puppet to do at lunchtime, just stuff like that, I never would have been thinking that I would be doing that on a work day on a course. She seems to come up with these ideas [it helps to] just keep me engaged and keeps me energised more than anything (P8)

One participant described the puppet activity as a rare and motivating opportunity to be creative, something they felt was often lost in their day-to-day work. They found the exercise inspiring and relevant to their professional background, fostering emotional engagement and prompting cognitive reflection on how similar creative approaches could be used to engage people and gather data in challenging contexts:

When we did the puppets, this was an opportunity to be creative. And I think that that's something that we can be at risk of losing as we get into the rigmarole of our jobs and the day-to-day. So, I took a lot from that just feeling like this is definitely something that I want to explore. You know, look at the opportunities that it could open and offer for me. So, I probably found it quite inspiring. I'm an OT by background, so I think generally we do tend to be fairly creative minded [...] create different ideas to get people to engage. So, I think it was just a reminder that you can then extend that into going into research and into that arena where you're looking at engaging people where it can be difficult - through different mixed methods to help get the data that you need (P2)

In contrast, one participant found the creative 'puppet' activity uncomfortable and struggled to see its relevance, limiting their emotional and cognitive engagement with the exercise, although they still took part:

We were sent puppets to make a puppet and then be in our coaching groups and talk about our 10-year plan through the puppet and I understand - they said a bit of theory behind how it's easier to talk from the third person, but it took up like a good chunk of the session and it just felt really uncomfortable to put your

puppet to the screen and talk about it. And in my head, I just didn't see how this was adult learning and I understand we've got to try different things and I'm really willing to do that, but I think again, it's my learning style because I know that some people in my coaching group enjoyed that and I enjoyed like watching other people. But it just felt really silly maybe that was me getting out my comfort zone, but I spoke to my mentor and they kind of agreed because I thought maybe they'd be able to help me see it from a different point of view and not be so pessimistic about it. But they were like, no, I wouldn't have done that if I got asked to do that.... I think there's a lot of things that I'm like I don't like the sound of that, but always try it and do it. And then most of the time it's like I can see the point in that or I'm glad I did that, but I think the puppet thing was a bit too far (P4)

They added that they felt the creative assignment was less suited to an online format, and that participants might be less inclined to invest the time and effort required compared with a face-to-face setting:

You can't use PowerPoint, which I know is to increase and encourage creativity. But that's really difficult online and I'm personally not going to go out and knit something or paint something just because of the time investment, which I think you'd probably be more willing to put into if it was face to face, wouldn't you? (P4)

However, on further reflection, this participant later recognised that the puppet activity was intended to support people in stepping beyond their comfort zone, an objective that aligned with their own development goals:

I said at the start I want[ed] to push myself out of my comfort zone [...] I wanted to do some things that feel quite challenging, that I don't want to do like, speak out a little bit more, be able to kind of ask for opportunities, do different things. [...] maybe with the puppet thing, that was an underlying thing they were trying to do throughout and I can understand that and it does feel like that (P4)

Another interviewee echoed this view, adding that the exercise had helped to encourage active participation, self-expression, and social interaction:

We had to use puppets to convey our message, and that even helped. It also depends on the work you put into it. I guess if you're not prepared to put your hand in a puppet publicly in a group and say, this is my idea and tell it through a puppet, it can be quite intimidating for some people (P10)

Similarly, another participant likewise explained that the process fostered new perspectives and different ways of learning (see 3.6.4):

The creativity session that was amazing. That was really good. It sort of got me out of my comfort zone and actually made me do some things I probably wouldn't shy away from otherwise [...]they've made it come to life a little bit more. I think the storytelling [...] although that was probably not something that I really enjoyed, I benefited from it. He was really good [...] The creative stuff is although I love it, it's not really my bread and butter. [...] but it showed different perspectives and a different way of understanding and learning. It was really good. So, the challenge isn't really the fact that I found it hard. It was just that I was possibly out of my own comfort zone (P7)

One interviewee also highlighted stories and storytelling as an effective way of supporting active learning by fostering emotional, behavioural, and cognitive engagement with the course material:

I quite like stories as well. So, when there's a bit of a narrative, I can kind of shut my eyes and visualise and see something a little bit more. Use my own creativity to engage rather than it's just been presented to me (P6)

Yet, storytelling exercises were a creative, participatory approach that some participants struggled to see as relevant to their learning aims and objectives. One post-programme evaluation comment, for example, noted that they “found the storytelling parts difficult to follow at times”. One interviewee expanded on this experience, reflecting that uncertainty about the purpose of this session and its activities undermined their emotional engagement, limited their behavioural participation, and constrained their cognitive engagement by making it difficult to connect the activity to their learning goals:

I definitely didn't enjoy the first one with Alan and Anna. It was a bit abstract. He brought in these pictures and I don't know if it was meant to be like a conversation starter or looking at these images to think about a research theme or to answer a research question. I did find that one difficult. It was quite an abstract concept and maybe it's just my brain wasn't engaging with that really [...] So I found that a little bit I don't really know what's going on here. I thought it was just me, but then at the coaching meeting after that I think everybody had struggled with that session, to be honest [...] I didn't do massive reflection on that particular one (P9)

Another interviewee echoed this experience:

I didn't enjoy the art-based learning stuff. The stuff where we looked at the pictures. It wasn't like they didn't deliver it well, I thought it was interesting, but it just didn't make sense to me at all for my practice or going forward in research. I thought it was just a completely different paradigm that I wouldn't really be interested in. It was the same in the story based telling of the research. I get that sometimes there are different ways to put it across and sometimes that creativeness could be really good if you go to a conference or whatever and you put it into like a storytelling lens. But for me it just dragged when it's three different stories of a different piece of research [...] I think it just took too long to concentrate on those stories and pick out the key bits for me. Split up or on another day, it might have been completely different, but that session for me was a bit all over the place like I really struggled to engage with it. P8

One participant, however, described an emotional shift from early disengagement and uncertainty in the storytelling session to recognising the relevance and lasting impact of these approaches, illustrating how perceptions can change once the purpose becomes clear (see 3.6.1):

I liked the storytelling [...] because my mindset about research was just basically more of the quantitative so I like the fact that it took me off what I know to what I don't even know – and I've just been thinking of how I can use that for my presentation or use this storytelling. It was helpful. To be honest, initially I didn't understand where we were going to go, but I liked the way at the end of the session, Alan was able to summarise everything that's happened in the storytelling. I'm still remembering everything that happened that day. So that's how much impact it had on me for someone who has not gone into class for a very long time [...] Initially it was quite boring, because I didn't understand what we were doing here, but as time goes on, like the videos and the presentations [...] I still didn't get it until like towards the end, when they were summarising it [...] it helped, but I wouldn't say it was a bad thing because sometimes you might not get how it is in the beginning until the end when you understand why everything was like that (P3)

These mixed reactions to the storytelling exercises highlight how creative approaches could both stimulate and constrain engagement, depending on participants' ability to see their relevance. More broadly, one participant reflected that the strong emphasis on metaphors across the course might pose particular challenges for neurodiverse learners:

The other thing that sometimes strikes me is there's a big focus on metaphors [...] And I think if you were someone potentially who was autistic or neurodiverse, you're going to struggle with that. So that always

stands out to me as this will be really tricky for some people [...] like the presentation is a metaphor piece, a metaphor for your five-year plan [...] I think having the presentation based on a metaphor's quite limiting (P1)

Facilitators, for their part, stressed the need to manage participants' expectations about online learning to support engagement with more creative and participatory methods. They noted that if participants began the programme expecting a passive, webinar-style format, this could create early uncertainty about the purpose of these approaches and risk resistance or disengagement. By addressing expectations from the outset and clarifying the role of creative and interactive methods, facilitators felt they could strengthen both behavioural and emotional engagement in these activities.

3.3.3 Assignments

A clear indicator of behavioural engagement in the programme was the completion of assignments by 14/16 participants. To explore the factors underpinning this engagement, the post-programme evaluation asked how useful they had found the assignments for their learning and development. The majority (9/15) reported finding them "very useful", with a further 2 finding them "extremely useful" (see Fig. 17)

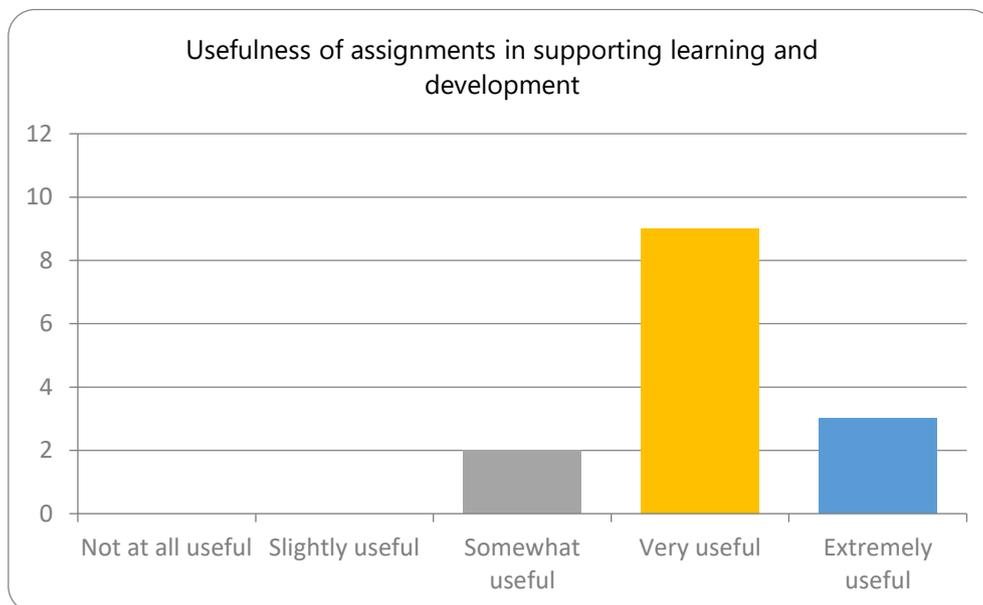


Figure 17

In the accompanying comments, some highlighted how the assignments had provided the opportunity to consolidate their learning:

The written assignment really consolidated my learning from a place that allowed me to express in the most valuable way for me which was refreshing.

It's also encouraged me to revisiting learnings from the course which has been really valuable.

Two participants also reflected on how the assignments had pushed them out of their comfort zones to develop new skills (see 3.6.2):

I had never done a reflective writing piece before and it was a little daunting. Having this as an assignment has forced me to step out of my comfort zone and in the process acquire a new skill.

One of the most impactful parts of the assignments was the opportunity to create a video. Although I initially found it challenging, trying out different apps and learning how to record myself effectively, it pushed me out of my comfort zone and helped me develop new digital communication skills [...] Going

forward, clearer technical guidance on tools for video creation could make the process smoother, but overall, the assignments were both enriching and empowering.

One interviewee echoed this perspective:

The assignment that we've got to do without using PowerPoint, I think that's going to be quite a strange one, but I'm quite excited about it, but it's going to be a bit strange doing something so away from the norm of presentations and it'll be a bit of a challenge doing that in a non-person environment. So doing a creative presentation when you're not even in person [...] I have learned things from it definitely. (P9)

One participant commented that they valued the assignments in "supporting me to think critically", whilst another described how they had helped them to expand their learning and make reading a more habitual part of their practice:

The reflective assignments encouraged me to read more widely, not just academic texts but also books that broaden my understanding of leadership and research. This habit has stayed with me, and I now find myself more engaged with reading as part of my ongoing development.

For some, the creative approach was particularly engaging (see 3.3.2.2):

Loved the creative metaphor. These were quite powerful. The other assignment is necessary

I loved the presentations; it was so good seeing them presented in such a creative way (despite my initial reservations)

It also made me think more creatively about how to present my ideas with clarity and confidence

Another participant noted that the personal focus of the assignments made them feel more accessible than traditional academic tasks:

Loved that the presentations were creative and personal and the main assignment also personal as it was reflective so less pressure for academic requirements.

Another added that the assignment supported them to "explore subjects according to my need".

2 people, however, indicated that they were only "somewhat useful", with one person noting they would have liked the work to be accredited. Another similarly added:

Found them both difficult to do. I would say the assignment is a bit of a slog when the course isn't registered for any points towards masters etc.

It is likely that lack of accreditation was an underpinning factor in at least one of the two participants who did not complete the assignments.

3.4 Collaborative Engagement

Collaborative engagement refers to participants' active involvement in learning through relationships with peers, facilitators, and wider professional networks. Whereas social engagement centres on creating belonging and trust within the learning community (see 3.5), collaborative engagement focuses on learning with and from others and connecting to institutional opportunities to enhance development and expand professional networks.

In this evaluation, collaborative engagement was fostered through group dialogue, coaching, and mentoring, with analysis of this dimension of engagement beginning by examining whether participants felt the early sessions provided sufficient opportunities to work with others (see Fig 18).

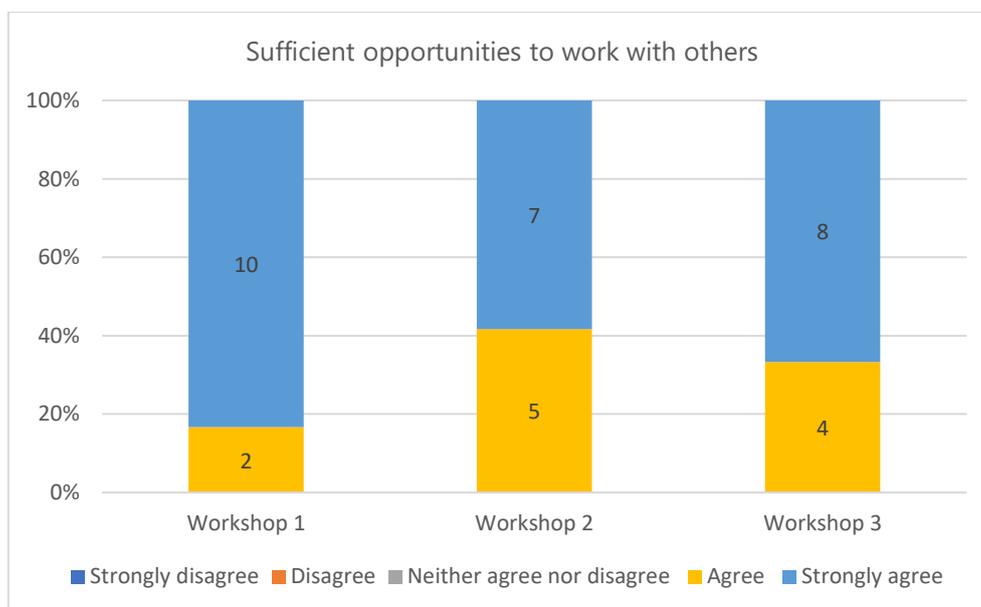


Figure 18

All respondents either agreed or strongly agreed that they had adequate opportunities to collaborate in the first three sessions, indicating that the programme design was successful in creating the conditions for interaction and collaboration.

3.4.1 Small group discussions

Small-group discussions were a central feature of the programme's workshop design, providing space for participants to exchange ideas, apply learning to their own contexts, and engage more actively with peers, thereby supporting both collaborative and cognitive engagement. They also served as important sites of behavioural engagement, as participants were expected to contribute to discussions, sustain active participation, and take responsibility for their own learning.

As confidence to participate in these groups is likely to be a precondition for active behavioural engagement in discussions, participants were asked to rate their confidence in taking part in small group work.

At the induction, 9 of 11 respondents reported feeling "confident," including 4 who were "very confident." One participant described feeling "somewhat confident," attributing this to "shyness" but anticipated their confidence would increase as they became more familiar with the group (see 3.5). One person also commented that they felt "anxious in case I was talking too much or too little" in the breakout rooms. Another participant reported feeling "not so confident" due to audio issues that prevented others from hearing them clearly (see 3.8.1).

At the end of the first session, 10 out of 12 participants indicated that they felt confident to take part in the small group discussions, with a further 2 feeling "very confident". One person commented on how they found it "a lot easier" to contribute to small group conversations compared to the whole group discussions (see 3.4.2).

This sense of ease was further reinforced in the second session, when all but one participant agreed that they felt comfortable speaking openly and honestly in the small-group discussions, 5 of whom strongly agreed. By the third session, all participants agreed and 9 of 12 strongly agreed that they felt confident to participate in this context. One interviewee noted that the inclusive atmosphere and regular breakout room discussions supported their behavioural engagement, which, in turn, boosted their confidence (see 3.2.1):

I would say also then the confidence part. I can't believe sometimes I would contribute. I know that I'm quite expressive, but in the midst of people that I thought I would be intimidated at some point there was no room for intimidation and there was inclusion there and opportunities for everyone to be able to speak. So, I like the fact that there's different breakout rooms where you discuss things and then everyone expects you to talk. So, you would talk and contribute. So yes, I think it's made me realise that sometimes we underestimate ourselves. (P3)

To assess the degree of behavioural engagement in small-group discussions, participants were asked whether they felt they had actively contributed to these activities during the early workshops. In the first workshop, 9 of 12 respondents strongly agreed and 3 agreed that they actively participated in small-group discussions and activities.

In the third session, 9 out of 12 respondents reported "frequently" contributing to small-group discussions, although 3 indicated that they only "occasionally" participated, suggesting some variation in sustained engagement across sessions. Again, one person commented that the small group work was "easier for people to engage in" than the whole group discussions.

Measuring the value participants placed on this form of collaborative engagement, all 12 respondents in the second session indicated that these discussions were useful, with 3 rating them as "extremely useful." One person highlighted the paired discussions as the most valuable part of the session and 7 respondents reported feeling most engaged during the paired discussions. By the third session, the number of people rating the small group discussions as "extremely useful" had increased to 7/12, with a further 4 indicating that they were "useful," and only 1 rating them as "somewhat useful. One participant commented that "the frequency of the breakout groups is perfect" in this workshop.

For some participants, the small-group sessions were a vital source of interaction that helped to sustain their affective and behavioural engagement in the course. As one put it:

I enjoy the group work and the interactiveness of it [...] I quite like doing that because otherwise I feel like I fade out if I don't. I always try and get involved (P8)

Another interviewee echoed this point, emphasising that without such opportunities for interaction they would have struggled to stay engaged:

I appreciated the opportunity to do sessions like the focus groups, because I think if you were to remove them and instead inserted more of "we're going to talk through topics" I would struggle there as well, because, I don't think I's do as much (P5)

A post-workshop comment from the first online session also noted that they felt most "engaged during the break out discussions".

One person also pointed to the value of paired discussions in the second workshop for enhancing social connection (see 3.5):

I enjoyed the paired discussion as the person I was paired with has similar background and aspirations to me so I enjoyed getting to know her.

Increased familiarity, for one participant, supported greater collaborative engagement, suggesting that *“it might be good to be with the same breakout group for the day [...] if you don’t know the colleagues in the breakout rooms you hold back a bit.”*

Lastly, participants were also asked to provide feedback on whether there was sufficient structure and guidance to support these small-group discussions (see Fig. 19).

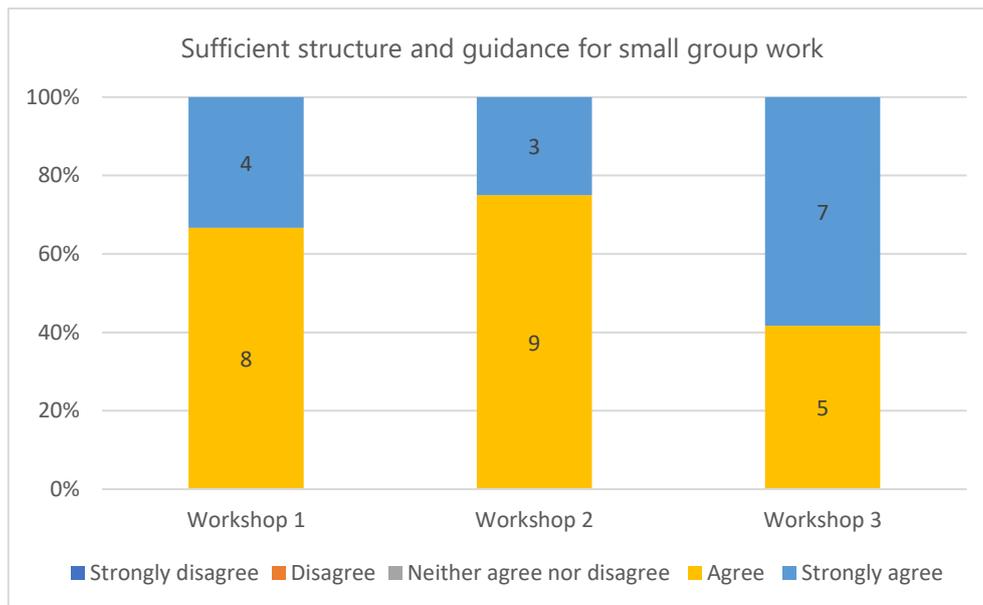


Figure 19

Across all three workshops, participants consistently agreed that there was sufficient structure and guidance for small-group work, with a clear shift toward “strongly agree” by Workshop 3. Following the third session, all respondents also agreed that the size and make-up of the breakout groups supported productive conversations, with 7 of 12 strongly agreeing.

Timing

However, in the first session, one participant commented that *“when breaking for the small group sessions the key points for discussion need to be clear, e.g. written down somewhere”*. Furthermore, a number of comments pointed to issues of time and timing in the breakout discussions. Participants noted that *“sometimes you can get cut off mid-conversation”* and that *“sometimes it was hard to get into the flow of the exercise, particularly in the short time frames given.”* Others echoed this view, suggesting that *“slightly longer would’ve been nice, although you could argue we’d still ask for more time!”* and *“maybe slightly more time for breakout work, but I understand this might not be achievable given the time restrictions for the whole session.”* One participant also commented that *“one of the group work sessions was not clear on time, so it was not productive”*. In the interviews, however, one participant noted that early issues with unclear time signals had been rectified alongside the introduction of clearer guidance on objectives for the breakout room work that helped to guide discussion. One interviewee suggested that more frequent time prompts could help ensure everyone had the opportunity to contribute.

I don't know if they could make better use of the timers. It says like 30 seconds to go back into the room, but I don't know if you can set it up where you give more regular time breakdowns [...] you'd be in a group of four and you've all got to say something and the first person is still talking and your time's up (P2)

Another participant noted that breakout rooms were sometimes too long, leaving time that could have been used more productively elsewhere, while at other times discussions ended prematurely.

Group dynamics

Later in the programme, interviews provided a more nuanced view of small-group discussions, suggesting that their usefulness depended heavily on levels of participation and the presence of facilitator support. For example, one participant described less productive discussions when peers contributed little, noting that these sessions were more effective when a facilitator was present to guide and prompt conversation. They also observed that when topics required specialised knowledge, participants were more hesitant to contribute, especially if no one felt able to take the lead:

If you're put in a focus group with people that don't work well in a focus group, it can be quite hard. Like sometimes it kind of felt like getting blood out of stone a little bit. [...] Some people are introverts and things like that, and I understand that some people don't really thrive in situations like that, but I think if you're kind of unlucky in terms of the way that they split the focus groups up, sometimes you've been in a focus group with a few people that just don't respond to those focus group situations, which has been quite hard [...] that's probably been the only area where it's been a bit tricky like some of the activities have been good, but we've not managed to maximise them because people have been a bit sort of standoffish in the focus groups and it's been a bit awkward now. Sometimes we've had facilitators that have joined the focus groups, which have helped [...] there's been other times when we haven't and I'd say it's definitely worked better when we've had a facilitator there to kind of start the fires of a bit of a conversation. But when they've not been there, I think it's fallen off a little bit in terms of no one really knows who's sort of speaking naturally. Someone kind of wants to lead the group. But people are a bit nervous, particularly if it's a topic like research paradigms where people might not be comfortable sort of taking a lead on it. So yeah, that's probably been the only area of the course where I felt a bit like we didn't take full advantage of the potential for those activities (P5)

They added that lack of engagement with the pre-learning materials could exacerbate this problem (see also 3.3.1):

I think sometimes a problem can be that if it's a focus group that's earlier on in the session, it's generally around the pre-course material. And if people haven't done the homework that can be quite difficult (P5)

These challenges were further compounded by the online format which made it easier for peers to disengage by turning their cameras off and remaining silent:

There's some people that sort of often say, oh, I'm not feeling well and then put the camera off, which is fine, you might not be feeling well, but again, if you're not really seeing them and they're not really engaging and just sat there quiet, it's hard to get anything out of them (P5)

A second interviewee made similar observations, highlighted how group dynamics, online conduct and uneven preparation could limit the depth of discussion, often leaving them feeling that discussion lacked depth and that breakout rooms ran longer than necessary:

I think those things take time depending on your group. And online it's less easy to figure people out because there's some people that will have their camera off or they'll volunteer, "No, sorry I didn't get a

chance to do the reading, so I don't really feel I can contribute...[...] I am learning just the value of contributing because that can be supportive of other people but I do find it difficult, because I like to get stuff done. I like to feel stuff's been productive, useful and has something sort of measurable and tangible [...] but if it's a group effort, sometimes you don't want to be the one leading it all the time, because you're always not always the best way [...] when you've not got that much debate going on, it can be a little bit okay, we've got 15-20 minutes here and there's not much not much happening (P6)

This interviewee went on to explain how lack of engagement in the pre-learning often left groups reliant on a few individuals to lead the discussion, requiring them to consciously adapt their own level of contribution to encourage wider participation:

"I think for most people [the -re-reading] is probably quite rushed, or they're hoping that somebody else has done the reading and someone else will lead the subgroup [...] And I noticed that more at the beginning, so I purposefully took a back step because no, it's your own learning journey. Because I will talk forever if I'm given the mic [...] but I learnt not to because not everybody is that forthcoming, but I also know that [...] there's some people just need a bit of a kick start and then they're thinking and creativity comes on board so I kind of juggle depending on who's in my group (P6)

For one participant, even when peers had completed the pre-reading, there was felt to be an over-reliance on small group discussion that often failed to extend their learning and limited the depth of cognitive engagement:

It just feels like maybe what we covered in the sessions wasn't really expanded much further than what I already read [in the pre-learning] other than hearing other people's perspectives, which is nice. But just not all day sometimes [...] the session was very much discussion-based, getting different people's perspectives [...] it's nice to get people's opinions, but it's not taken me much further than what I'd learnt [in the pre-reading] (P1)

Another participant similarly expressed frustration at being placed in small groups with peers whose level of engagement or understanding did not support deeper learning:

I think the sessions that I've really enjoyed are ones that other people in the groups that I was put in maybe hadn't. So, I enjoyed like the ones where we've had guest speakers in talking about different ways to conduct research. I enjoyed listening to those stories about kind of accessing different cultures. And then I was put into a group where some of the other students were like 'oh, I don't get it'. And then that frustrated me because you don't feel like you have a shared experience (P2)

They added that repeatedly being placed in small groups with the same people limited their creative thinking and led them to disengage:

I've found that a lot of the times I've been grouped with the same people. And I would have liked a bit more of a mix up [...] I don't know if they did that off our personality type [...] sometimes I think that probably stunts my creativity and engagement. I will just switch off then really honestly (P2)

Another interviewee made a similar observation, noting that while small-group discussions were generally productive, the level of critical engagement varied across groups and was often constrained by time and the absence of facilitator input:

I do think it [critical thinking] depends a little bit on how the people in the group are feeling so it's like some days it's a bit more critical than others and other days it's just more of a chat really. We get a lot of breakout rooms within the course to work with each other in the smaller group, but sometimes it just feels like there's a lot of in and out - we don't usually get a tutor come into the group with us, so it's left to the

three or four people who come into the group. So obviously it depends who you're put in with as to what you get out of that. Most people have been pretty engaged with it, so we do usually get somewhere at the end of it, but then you're rushed back to the group and then we talk through like each group. So, I suppose there has been quite a bit of critical thinking and reflection in there (P9)

One participant reflected on the advantages and disadvantages of including a facilitator in the breakout rooms to address some of these challenges:

Some people are uncomfortable like Big Brothers watching. Am I getting the right answers? Some people would find it reassuring to know that someone's there to support and encourage and offer a bit of advice to kick start your thinking. I would welcome it. I think it's probably helpful to have someone just bobbing in, maybe not for all of it [...] just nip in for two or three minutes in each group, just to check people have got ideas or if you've finished early, we can bring it back and use the time more effectively for something else perhaps (P6).

A comment in the post-programme evaluation echoed these views:

I felt at times I was in sub groups and it was quite hard to encourage discussions (without a facilitator present). This could just be different personality types

Another interviewee likewise felt that their learning was limited by the lack of facilitator input during small-group discussions and by the absence of support before and after these sessions to reinforce understanding and extend cognitive engagement (see 3.6):

So, for example, with the leadership stuff, it felt like there maybe could have been more like learning rather than being in break out rooms, having like a 3–4-minute discussion about something that was a very basic question. And then just that kind of being it [...] I feel like I didn't learn about being a leader [...] You're like stuck with that information then and I think whilst that allows you to be critical because you're going to come with different viewpoints, you kind of want the facilitators or the people who have this extra expertise to teach you and talk more [...] I just felt like we're put into these breakout rooms to talk about something that we don't really know anything about [...] and then share your answers and then we'll move on to the next thing [...] I think [if] facilitators joined the breakout rooms] it would then be able to take a direction where we would be able to think a little bit more. And then I'm guessing there'd be questions on top of those questions that they'd ask, especially if we were a little bit stuck, because if you're in there for 15 minutes, you're a bit stuck [...] I think having a facilitator there can just help guide you, especially if you're going in the wrong direction of what you're meant to be doing. Because again, you're there to learn. I wanted to know whether we're in the right direction or not (P4)

This participant contrasted their experience of feeling “stuck” in the online breakout rooms to small-group discussions in physical settings with more ready access to the facilitators and informal exposure to other group conversations:

I think maybe if you're in-person [...] even if you're often in your little group, you can hear other people's discussions. But being in a breakout room is just very like there's no exit (P4)

They added that the online format disrupted the flow of natural conversation, concluding that the discussion-based format of the programme would have worked better in person:

I think being online [...] you're not reading off people when someone has time to talk and then people stop the second two people talk at once. It just felt very unnatural. And that's just being online [...] I think with the amount of breakout rooms and discussions I think that would have been better in person (P4)

Another participant made a similar observation:

Not always seeing people to know when it was appropriate to talk so a few times a couple of people tried to start talking at the same time, including myself

One interviewee reflected that in-person interactions might have supported stronger collaborative engagement by making it easier to read social cues and manage group dynamics:

Some people have said how much they would have enjoyed it more if it was face to face. Maybe it would have made a bit of a difference I guess when you are in some of the discussion sessions, people might go off on a tangent and maybe they'd pick up more on social cues if you were face to face and sometimes people lose track of time very easily. I don't know if things like that would be better face to face because you'd be a bit more conscious that you're sat next to somebody rather than just gabbing away on a screen like I am right now (P2)

They went onto describe the difficulty of managing situations where one person dominated the breakout room discussion, noting how hard it was to redirect the conversation without facilitator support:

"When you're put in a breakout room and given a question and then someone comes and answers it and then it just gets taken over by that one person. It's difficult to interject then, isn't it and say 'we should be answering this question'. So that's been difficult. It's hard, isn't it? It's not like you want the tutors to kind of be coming in and checking in on all of us all the time, but maybe it would be just to help keep it a bit more on track. As much as I'm kind of all for saying 'whoa, come on, guys, let's keep it on track' I think it's really difficult to do in an online environment and I don't want to offend people." (P2)

However, one participant was concerned that introducing facilitators into the breakout rooms would mean that people "didn't really contribute because I think it makes people like really relaxed", taking on less responsibility for the direction of the conversation, but also making people more hesitant to take part if "they think they might not be saying the right thing" (P3). They concluded that it was better that participants were "left to discuss amongst ourselves and someone present back to the whole group".

For certain participants however, the difficulties of small-group discussions created a sense that breakout rooms were overused and too time-consuming:

I think we did like something like 6 breakout rooms in a session [...] I just say the breakout rooms there's just too many of them for too long. For everything that gets asked (P4)

Similarly, another interviewee added:

There's almost been too much discussion, so I always appreciate hearing from other people and the little breakout rooms, but sometimes it's just felt like too much [...] The breakout rooms are great, but either fewer of them or slightly shorter (P1)

One of the post-programme evaluation comments echoed this point:

Less breakout rooms for some sessions. I personally didn't always feel comfortable in so many in one day.

From the facilitator perspective, the small group discussions were felt to be particularly effective in enhancing behavioural and collaborative engagement, particularly in contrast to challenges they faced in encouraging whole group discussion (see 3.4.2). Echoing participant reflections, facilitators also observed that although these activities fostered some degree of cognitive engagement, more could be done to strengthen this within the small group discussions (see 3.6).

Relatedly, there was some concern about the “quality” of small-group interactions, both in terms of whether participants felt able to speak openly and the degree of cognitive and critical engagement. One facilitator noted the risk of a few individuals dominating, a concern echoed by a participant who observed that breakout rooms were often “led by the same people.” These reflections suggested that greater facilitator input could help participants deepen their understanding of the content, while also enabling facilitators to gauge individual progress, promote more equitable participation and strengthen facilitator–participant relationships (see 3.5). Dedicating time to exploring the dynamics of effective group work within the programme was also recommended as a way to enhance collaborative engagement in small-group discussions.

3.4.2 Whole group discussions

Whole-group discussions were another key element of the programme’s workshop design, offering participants the opportunity to share perspectives across the cohort, engage with a wider range of views, and collectively consolidate their learning. These discussions therefore supported collaborative and cognitive engagement by encouraging participants to listen to and build on contributions from others, while also creating opportunities for facilitators to probe understanding and extend discussion. Whole group discussions also played a role in behavioural engagement, as participants were required to maintain focus and contribute in a larger forum.

Again, confidence was identified as a key affective factor that was likely to influence participants’ willingness to contribute to whole-group discussions. Over the course of the first three workshops, participants were asked to rate how confident they felt in taking part in these discussions (see Fig. 20).



Figure 20

Most participants reported feeling “confident” across the first three workshops, with the proportion of participants identifying as “somewhat confident” decreasing in workshop 2, and a small group of “very confident” participants emerging. This pattern stabilised in Workshop 3, with little further change.

Some participants explained that a lack of confidence to part in whole group discussions was connected to a lack of familiarity with their peers:

[It's] daunting at times talking in front of people you don't know

Another reflected:

Usually, I am very confident in big groups. However, it did feel quite hard for people to start talking today, maybe because we are all new to the group. I held back so as not to be the one that always talks!

One respondent explained that their confidence in whole-group discussions depended on becoming familiar with the group dynamics, noting:

I think it will just take some time to adjust. I feel like there are a couple of extroverts within the group (which is fab) but I tend to go a little quieter when people are louder

Again, these insights highlight the importance of building social connections as a foundation for strengthening collaborative engagement in these exercises (see 3.5).

On a different note, one interviewee described how the dynamics of large-group discussions online made it difficult to judge when to speak, leading to concerns about interrupting or oversharing and highlighting the limitations of online meetings in supporting a natural conversational flow (see also 3.5).

When you're on Teams with a group, you're always waiting your turn, and I'm quite impulsive. If I've got something to say, I like to just say it. And if I don't, I forget what I'm going to say or the moments passed. And I think it's easier to read the room when you're in a room. But I think sometimes on Teams it's like I'll just blurt something out and then I feel rude because I've jumped in when it's maybe not my turn [...] I think that that is just part of the limitations of online meetings really, isn't it? My other worry is that I'm oversharing a little bit sometimes if it's quiet and nobody else seems to be saying anything, I'll just throw my two pennies in, but then I think people might be sick of hearing my voice (P9)

Similarly, one person noted that “[It’s] easier to hold discussions [in small groups] as less people to try and work out who is going to speak” and other post-workshop comments attributed their hesitation to take part in whole group discussions to “personal anxieties”, with a second noting “I feel it’s a personality trait that I struggle with group discussions and often feel awkward”.

One participant described a similar experience linking their difficulties with participating in whole group discussions to their neurodiversity:

I don't feel comfortable talking in larger groups really although it almost made it easier being online. I either don't talk or I talk too much so I'm always a bit anxious that when I do speak, I'll go on too much. I am autistic with high probability of ADHD so I know the above are things I struggle with. I felt ok for most of the sessions today and having the chat function as an option is good [...] ADHD issues-don't cope well with groups, find it easier in 1-2-1 conversations. Worried about sounding stupid or worse: being seen as a 'know it all' I overthink everything

However, this comment also suggests that participating in larger groups can be easier online than in person, with the chat function providing an effective alternative entry point for collaborative engagement in this context. A similar view was expressed at the end of the fourth session, where one participant highlighted that the low-pressure facilitation and option to contribute via the chat reduced their anxiety and made it easier to engage.

It will just take time to adjust to the large group. I like how there is no expectation to speak in the group which is good, as it lowers my anxiety and I am able to think more clearly. I am also happy to put stuff in the chat

Two participants also commented positively on the facilitation of the whole-group discussions during the fourth session.

For some participants, a lack of confidence and anxieties about contributing in whole-group settings likely underpinned facilitator observations that participants were often reticent to speak up in this context. In the first session, the limited level of verbal contributions was noted as a particular concern, with one participant commenting that it *“seemed quite hard for us to engage/share in the group at some points.”* One facilitator also suggested that *“concern about getting things wrong might be a barrier.”* At the same time, facilitators observed that participants were more comfortable making written contributions through the Miro board and via the chat function. One facilitator further noted that contributions increased as the day progressed in the first session, with the final discussion representing *“an important step for the group.”*

A similar pattern of behaviour was observed in the second workshop. Although some facilitators noted more verbal contributions in the first half of this session compared to the first workshop, they also felt that some of the momentum in the whole group discussions seen during the first session had levelled off. Facilitators increasingly viewed written contributions as a positive indicator of collaborative engagement, though one cautioned that relying too heavily on them might signal an over-attachment to a particular learning style and restrict other forms of participation. Nevertheless, all participants agreed that they had learnt from the insights, views, and experiences shared by their peers during this session, with 2 out of 12 strongly agreeing. One participant highlighted *“hearing where others are at on delving into research and their actions to date to guide me with what to expect”* as one of the most valuable aspects of the workshop, suggesting that peer-to-peer learning and cognitive engagement were supported even when verbal contributions in whole-group settings were limited.

By the third session, just under half of respondents (5/12) reported “frequently” making verbal contributions to whole group discussions, whilst an equal number said they contributed “occasionally,” and 2/12 reported doing so “rarely.” One facilitator rated the frequency of verbal contributions during the whole group discussions in the third session as “fair”, but commented that very few people still talked openly in the large group sessions, with many continuing to use the chat function. There was ongoing concern from facilitators at this stage with *“how to promote in-person conversations in the large group”* although there was a sense that people became more vocal and open as the session progressed.

In the fourth session, 5 of 7 respondents agreed that there were sufficient verbal contributions to support productive whole-group conversations, including 1 who strongly agreed. The remaining 2 respondents gave a neutral response. One participant commented that:

It didn't feel like the group were as motivated or engaged during today's session

Similarly, another added:

It's really difficult but feels like people are reluctant to start the conversations especially during feedback from group work.

Whilst two facilitators rated verbal contributions to whole group discussions during the fourth workshop as “fair”, one observed that there were *“more interactions in the large group discussions”* and another noted that *“participants will contribute if directly asked”*.

Some suggestions were made during these early workshops by facilitators and participants on ways to strengthen collaborative engagement in whole group discussions. For example, after the first session one participant proposed making direct requests for individuals to share their reflections *“to see if these were relatable for others”* fostering both social and collaborative engagement (see 3.5). A participant comment from the fourth session also suggested this more direct approach:

Asking direct questions to individual people. Although this doesn't come easy to some, they may be more engaged if asked directly rather than being asked to put themselves forward voluntarily.

A more structured approach was suggested by another participant to address underlying anxiety about speaking over people:

It's difficult to guess when someone else will speak online and run the risk of cutting someone up who may have just wanted to speak. Perhaps someone from each coaching group is expected to speak at least once per division point.

One interviewee highlighted the value of active encouragement from facilitators in building confidence to contribute in this context, underscoring the importance of facilitator support:

I've had to be the one to speak on behalf of my group [...] initially I thought I won't be able to do it, but I think it was Gillian that was anchoring the course that day, so she kept saying it's just a minute, just keep talking and I was able to finish [...] it was a good prompting because sometimes someone like me, I need that push to those things (P3)

Another participant described how input from facilitators in this forum supported their engagement:

Follow up questions from the facilitators were good to encourage further discussion as well.

Facilitators reflections on ways to support greater engagement in whole group discussions echoed some of the participants suggestions. For example, some facilitators emphasised the value of directly inviting individual contributions, for example by personally inviting a participant to share their thoughts with the group or asking someone to expand on a point they had made in the chat. Other strategies included inviting participants to note down their reflections from breakout rooms before feeding back to the group and leaving sufficient time for people to respond to questions before offering additional input.

Some facilitators also emphasised that contributions to whole-group discussions were likely to be limited until participants felt comfortable to share, particularly when reflections were especially personal (see 3.2.1). From a facilitator perspective, maintaining an option to "opt out" was seen as important for sustaining a sense of safety and encouraging participation over time. In addition, facilitators observed that 'leaders' who regularly fed back from small group or pair discussions emerged over the course of the programme, and that these participants increasingly began to 'create space' for others by inviting peers to add further comments. Allowing time for this process to develop was considered important for building collaborative engagement across the cohort, with one facilitator suggesting that explicitly reflecting on how participants empower others in the group could highlight these behaviours as indicators of emerging leadership skills.

Facilitators also recognised that a lack of verbal contributions did not necessarily signal disengagement, noting that alternative 'access points' such as the Miro board and chat function created valuable opportunities for collaborative engagement, particularly while participants were still building confidence to speak in the whole group. This approach reflected what some facilitators described as 'meeting people where they are' and working to participants' strengths. However, there was concern that relying on these platforms early in the programme led to their overuse in later sessions. Some facilitators also suggested that more thought was needed about the number and roles of facilitators required to moderate and integrate contributions across platforms, while remaining mindful of their own professional lens when selecting which points to highlight for discussion (see 3.8.5). Facilitators described the challenge of managing emerging 'side conversations' in the chat alongside the main discussion, as well as allowing time, where possible, to review non-verbal contributions before bringing them into the conversation. One participant made a similar observation:

There's some people that stick stuff in the chat as well. I'm naturally just terrible at double checking the chat. I always like open it and then want to close it 'cause I want to focus on something else. Then I forget it's open. So, I have to go back to it (P5)

To further strengthen verbal contributions in whole-group discussions, facilitators suggested that increasing opportunities for dialogue in the early sessions, while reducing the amount of “content,” might help enhance engagement. However, as the workshops progressed, both participants and facilitators expressed concern that there was too much emphasis on discussion. For example, one participant reflected that efforts to “go around” the group to invite contributions often felt too time-consuming:

They [whole group discussions] are OK to contribute mostly. Sometimes I think we've been encouraged to all contribute, maybe like an introduction thing or after a break. And I think that's quite like costly on time to go and ask 20 people (P1)

Another participant added that such discussions felt particularly disengaging when they lacked expert input or structured content to make them more meaningful:

Some that didn't work quite well and it was like [whole] group discussions and talking and being quite slow to go around the group to come back [...] I learn best by just kind of hearing people speak or talk about something for quite a bit, and then having a discussion [...]. Jane was talking and then giving us some learning from it and then it just felt a bit more real (P4)

They explained that without sufficient stimulus or deeper cognitive engagement, their motivation and interest in the programme declined, leading them to disengage from these discussions:

I felt like my motivation or my interest dipped. I had less of a want to engage [...] sharing with the whole group. Because it takes quite a lot for me to do that, but the interest and the motivation isn't there. There's nothing like pushing me to kind of – like, I'll have thoughts and I'll be jotting them down, but it's just kind of a thought that I keep to myself [...] I think coming to the end, I didn't feel that need to do that or want. I think that's the thing. I did feel like I just didn't want to do that (P4)

Overall, there was a sense that a broader range of structured, interactive activities beyond group discussions was needed to diversify and strengthen opportunities for collaborative engagement (see 3.3.2).

3.4.3 Coaching

Group coaching was a key dimension of collaborative engagement within the programme, offering a structured space for participants to reflect on their development as practitioner researchers, connect programme learning to their organisational contexts, and learn with and from one another.

As an indicator of emotional engagement in coaching, and a likely precondition for collaborative engagement in these groups, 11 out of 12 participants also reported feeling comfortable participating in this element of the course, with 4 strongly agreeing. One person, however, provided a neutral response to this question and noted “I think it may take me a little longer to feel comfortable in the coaching session”.

Another highlighted a need for clearer guidance on managing group dynamics and individual contributions during the coaching, noting a lack of collaborative engagement in the session:

How much time per group delegate to guide the conversation-some more open to talking than others, don't want to use more of the time in place of others but don't want to allow the time to be wasted either and to make the most of it as group [...] The group delegates were giving short closed answers so an hour seemed to take a while and there was only 2 of us that were offering questions and thoughts really

They suggested that scheduling coaching earlier on the day of the second workshop may have addressed this issue.

In contrast, two participants identified coaching as the most valuable part of the second workshop, and one noted it was the element they felt most engaged with. Two facilitator comments also highlighted the coaching groups as working especially well, although one participant had missed the coaching group due to a call.

No issues were raised with the coaching at the end of the third workshop, with the exception of one participant who queried the purpose of coaching and expressed uncertainty as to *"what we are expected to gain from it"*. One participant, however, commented that it was *"absolutely brilliant"*.

Effective collaborative engagement in group coaching was seen to depend partly on participants' cognitive engagement with its purpose and how it related to the programme's overall aims. By the end of the second workshop, all respondents agreed they understood this connection, with 3 out of 12 strongly agreeing.

In the post-programme survey, 13 of 14 respondents agreed with the statement *'I understand the value and role of coaching in my professional development'*, including six who strongly agreed (see Fig. 21).

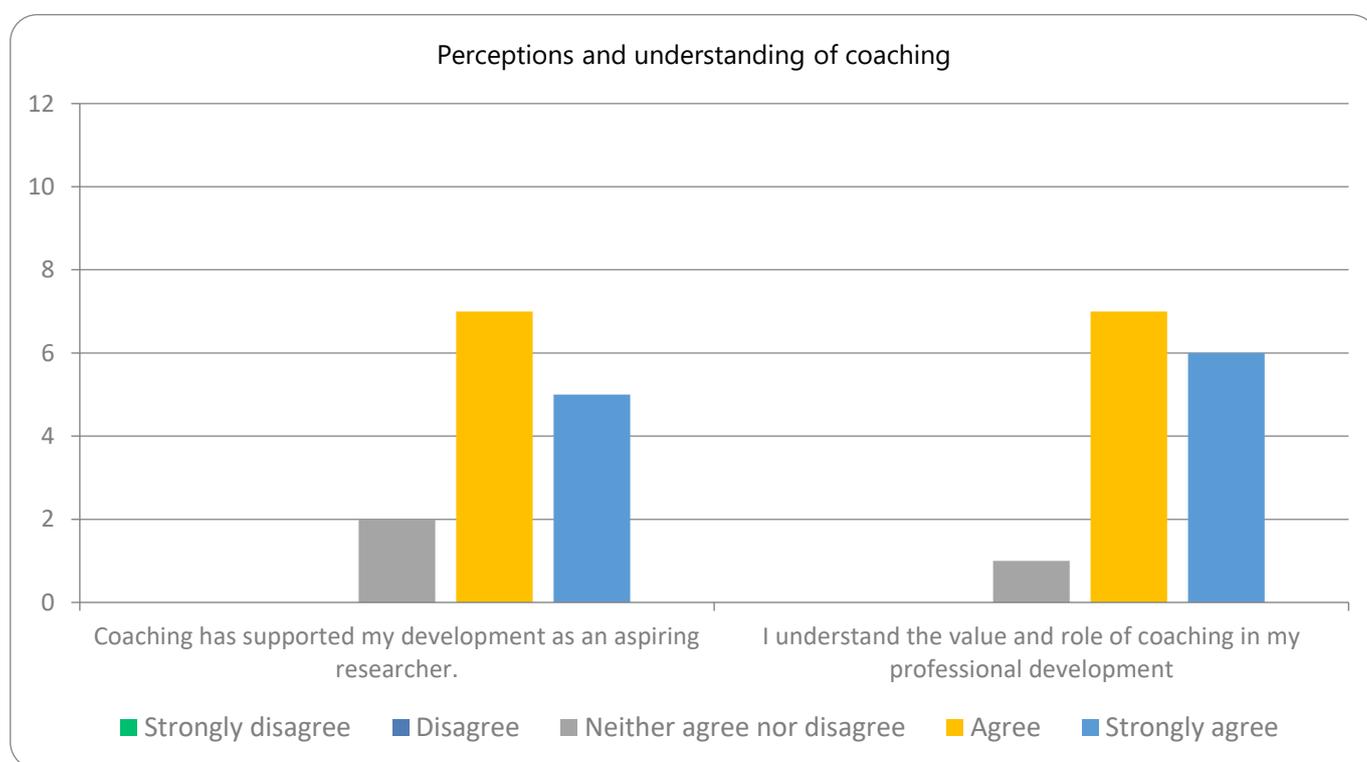


Figure 21

Overall, this suggests that participants strengthened their understanding of coaching over time, with one participant reflecting that *'I didn't really understand at first what coaching was, but once I got to grips with it, I feel it's a great idea'*. However, one participant expressed ongoing uncertainty, selecting a neutral response.

Participants were also asked whether they agreed that coaching had supported their development as an aspiring researcher. 12 out of 14 respondents agreed with this statement, 5 of whom strongly agreed. Two participants provided a neutral response suggesting some continued uncertainty in this regard (see Fig. 21)

When invited to expand on what ways the coaching had supported their development as a researcher, participants described a wide range of benefits. Many respondents pointed to the value of coaching in supporting social, emotional and collaborative engagement, describing how group coaching had enabled them to *"learn more about peers and dynamics"* and created *"a smaller, intimate space [that] allowed for deeper*

connections and peer support." One interviewee described how "it's been nice to sort of see an insight into how people are doing and feeling in their roles as well". Others reflected on "how we watched one another develop through the process, which online is difficult," valued "listening to the ideas and challenges of others" and "support from individuals from differing backgrounds" and noted that their "group were all very open to sharing."

Similarly, several interviewees emphasised the important role of the coaching groups in fostering deeper social engagement with their peers, noting that this was where they experienced the strongest sense of community and belonging during the programme (see 3.5):

I think the coaching group is the best thing in this course to me [...] I've not met them in person, but it feels like when you've got this connection you know them already. That's how we feel (P3)

People in our coaching group I know a little bit more about them because we have covered more material in that coaching group. Once we got to grips with what coaching was about (P9)

That's [coaching] is where I've had that kind of connection and getting to know people and that's been lovely (P4)

our (coaching) group, we've connected really (P6)

I think obviously the coaching group is more so [a sense of community] because obviously we've talked more, so we've had more interaction on that group basis [...] I think the fact that you go into the same group on a regular basis and have that coaching, I think that actually really makes the course work really well, because you've got that extra time to discuss the course with others but not on the actual session day. I think that's a really good element of it (P7)

One participant highlighted how the social connections built within their coaching group were strong enough to continue beyond the programme (see 3.5):

So, I feel like I probably would keep connected and keep that community with those that are on that coaching group. [...] I know the coaching group that I'm in some of them are actually local to me as well, which actually helps (P7)

Another interviewee also described how the regular coaching sessions had nurtured social engagement and helped build a network with potential for future collaboration:

The networking is built there and I just feel like at the end of this coaching something might just come out of the group because we may think of doing something or doing research together. That is something I was thinking about because of how well the group has been going (P3)

This was echoed by another participant:

I think as well, even within the coaching group, I understand that after this, the coaching group might not maintain links, but even within that you might find people contact you in the future to be involved in some sort of research, you know, it might be five years down the line, but you never know if we stay in contact that might be what happens. And that might be the way in (P10)

In this way, participants described the coaching groups as the primary setting where deeper relationships had developed, contrasting this with the more limited social engagement they experienced with the wider cohort. As one participant explained:

My coaching group I feel like I've got to know quite well or reasonably well. It's been a really lovely group so I'm happy with that and I guess everybody else there are people like I've been in little breakout rooms with sometimes so you get to recognise the basics, but you don't get to know them (P1)

I don't know if you're able to build that rapport with people that are not in your coaching group [...] I think it will be quite difficult, it'll be nice also to meet some people that you've been in breakout sessions with and you've discussed things with, but I don't think you would have that much connection like the people you had in your coaching group (P3)

One participant observed that growing familiarity with their coaching group supported collaborative engagement, as members created a respectful dynamic by moderating their contributions to allow others to speak:

There's been benefit to having the same group in coaching [...] We've got a really nice tight group and we're really respectful of one another and we share the microphone because knowing that I will speak a lot and I'm aware that the others perhaps won't, I will pause and wait and then I'll volunteer but it's not quite as easy to do that with those that you aren't as familiar with (P6)

Whilst most participants felt that the consistency of the coaching groups contributed to the strength of engagement in these sessions, one person queried whether “*ad hoc coaching sessions where the group was shuffled as a one off might have helped build these connections too*”.

Coaching facilitation was also praised, with one commenting on how their coach has used “*great methods to get us to really dig into key issues*” and “*facilitated relevant conversations*”. Another described how they valued the coach “*providing expert opinion and real-life experience*”. Participants valued how the coaching approach fostered emotional engagement in terms of creating a sense of safety that underpinned more open and collaborative participation in the discussions (see 3.2.1):

It made us all feel comfortable enough to openly discuss issues that really mattered

My coaching group have been really engaged as well [...] Everyone's been really open and honest, and I don't know whether that's because that's their personality type or that's just because the way the coaching sessions are run and the facilitator for our sessions has just been really good in sort of drawing you out (P5)

It's been nice to have that safe space to talk to others and have that facilitated by a coach (P7)

One participant added that this sense of safety encouraged people to share work-related issues they might not have felt able to raise elsewhere:

We've just got a group where we feel really comfortable to be really vulnerable with each other. It's a nice space. Everyone comes and is committed every time [...] we figured out quite quickly that it's a supportive emotional space and most of us are bringing issues related to our teams at work, which you don't feel safe enough to discuss in those environments. It's been really helpful (P6)

Some participants described how the coaching groups fostered social connections that were reinforced by emotional and collaborative engagement in the sessions. The small-group format, supported by an experienced coach, encouraged vulnerability and personal reflection, which in turn deepened both social and behavioural engagement:

Some participants described how the small-group format, supported by an experienced coach, encouraged vulnerability and personal reflection, which in turn deepened and was reinforced by the strengthening of social connection and collaborative engagement in the sessions:

Certainly, in our coaching group, I felt like we've got to know each other a little bit better. There's been some discussions that are quite deep, really just through our coaching facilitators' sort of style of delivering the sessions. So naturally I think people have had to come out of their shells a little bit, which has helped [...] the coaching sessions have been good in terms of like building better connections with the smaller group for sure (P5)

And it's meant we just have more time to connect with the people in those coaching group so then I feel like I know those people better than the rest of the group. So, it's just tied it all in together essentially and gives a free room to open up and discuss it all and be vulnerable [...] In my coaching group, everyone's been quite like engaged and seem to have enjoyed it (P8)

I think the coaching group is the best thing in this course to me. I've not met them in person, but it feels like when you've got this connection, you know them already. That's how we feel [...] apart from the learning reasons, I find it's therapeutic to be honest. So, it just feels like you are in a very safe space with people that you don't even know and you're able to voice how you feel about things. And I've learned a lot from the great minds in my group. We're all free to talk about how we feel about [...] when we talked in one of the classes about vulnerability, I think in my coaching group is where I feel more vulnerable, and I don't think there's anything I cannot bring to the table to discuss in the group and in the same way I feel like everyone is able to be vulnerable, to express their emotion or how they feel about things [...] We always talk about the assignments, how we feel about it, what we discussed in class, how do you feel about it? It just felt like I'm talking to my mates (P3)

I think the benefit of having the group coaching sessions is I've got to know a certain set of the group better than others, and I think it's been nice to have that safe space to talk to others and have that coaching facilitated by a coach that that's been really good [...] I think the number is nice. I think if it was a bit bigger, I wouldn't feel the same way [...] the coach is obviously well experienced and an excellent coach. It's felt very safe psychologically to speak and it's all very reflective (P7)

Another participant reinforced these views, emphasising the facilitator's skill in creating a space where social engagement and peer learning was fostered through supporting people to open up and be vulnerable with each other:

The coaching group has been amazing. That's just been such a benefit of the sessions [...] I love the coach [...] It's just been such a nice group, very understanding, just a space where you can really get to know people and connect. But also, I think in our group as well, we started off quite surface level, stuff about the course and now it's people crying, being vulnerable. I've never connected with people more through a screen. It just feels lovely. So, I think the coaching has been fab, really fab. And just hearing other people's job opportunities and their experiences through interviewing and getting to know people who are all from different professions and just what their work is like, what the different issues with the system they have, how they've applied research, what their challenges are and it's just been a really nice space [...] he really allowed a space for people to feel comfortable, and I think it also just depends on the people in your group. Everyone is lovely. Everyone is kind hearted and patient and listening, but I think the coach helps navigate what we were talking about and ask the right questions so we could expand it and go a little bit deeper than what we were talking about or what was on the surface (P4)

They went on to describe how the coach's approach encouraged participants to take greater ownership of the sessions, whilst the coach ensured they remained fair and inclusive through careful timekeeping:

And then what has happened over the groups, it's like us asking the questions and wanting to know more about what people are saying and the coach like taking a little bit more of a step back and he's just been really good as well about time keeping so everyone's got the same amount of time to talk about what they want to talk about. We always finish when we say we're going to finish [...] It's just like a lovely environment to be in and the coach has been amazing (P4)

Indeed, many participants highlighted the coaching sessions as a particularly enjoyable part of the course in the surveys and interviews, with one person describing them as their "favourite aspect" and another as a "really positive" experience. One person commented positively on the suitability of the online format for these sessions.

The coaching sessions have been a really nice space [...] I have enjoyed that. I think they're just a really nice group of people and it has been helpful [...] all of it should be face-to-face except maybe coaching I like online, coaching works well online (P1)

Several participants emphasised the value of coaching in supporting reflection, variously describing the groups as "a good space for honest reflection", "helped to encourage discussions and support reflection," and "very good at helping us reflect and also pushing the boundaries" (see 3.6.3). One interviewee explained how coaching provided structured opportunities to reflect on course learning and approach ideas from new perspectives, as well as maintaining momentum and engagement between the online workshops:

I've liked the coaching and the mentoring alongside the course. I think that's worked really well, especially the coaching side of things of understanding what we've been doing more on the course because you pay thought to those things [...] our coaching guy has been brilliant. We've just tied them in between each session, near enough, so it's just been a gap in the middle where we've then reflected on what we've done in the previous session as a group. And then he always comes up with some other quirky little way of going around it and discussing that which makes you then think about it all completely differently. And then he opens up the session as well to give us like what we want to do and discuss. A couple of times we've done the assignments or the presentation which has helped because we're all discussing where we're up to with it, the ideas we've got, that kind of thing (P8)

Another participant noted that the regular, participant-led coaching groups created space for open reflection without set topics or preparation, easing the burden on participants and sustaining behavioural engagement:

You're expected to attend the coaching groups for two hours without a set agenda or something that you've got to read and feedback on, it's just about you and where you're at with that week and what you want to bring to the table there and then is absolutely fine that relieves some of the pressure and I wonder whether people's commitment, knowing that it's already stretched enough, is perhaps because we know we've got to see each other every month (P6)

For some, these reflective discussions resulted in a sense of enhanced self-awareness, with one person describing it as a "space to safely explore the things that have held me back and driven me forward", and another noting how the coaching had led to "invaluable insights into myself" (see 3.7.2).

One participant noted that how the participant-led sessions, with an emphasis on building self-awareness and understanding how a person's sense of self shapes how they learn and engage with research, was counter to their initial expectations of coaching as a structured opportunity to revisit course content:

"The coaching is good again, not what I expected. I was expecting it to be very course based - 'what did you cover last session? We're just going to basically go over that and refresh your memory.' But it's been a little bit different for us. It's been kind of us leading the sessions. The only way I can describe it, and this isn't a

negative, is a bit new age-y - a bit more understanding yourself and getting a better understanding of the way you think and how that could impact the way you engage with the course or the way that you engage with research or the way you learn.” (P5)

They added that coaching gave them a valuable experience they would not have otherwise considered:

It's not something that I think I would have gone out of my way to engage with outside of the course, knowing what I know now, I don't know if I would have said, 'oh, that sounds like it's for me'. So, it's been kind of a good thing that I've been exposed to it (P5)

This participant also went on to describe how the attentive and supportive coaching environment had supported them to address specific personal challenges in relation to reflective writing (see 3.6.3):

I don't want to sort of discredit the sessions because I think they have given me some of those hard skills as well, I've not done any reflective writing previously and the coaching sessions have managed to include that for me, which has been a big benefit to especially because I think other people in the coaching session have done reflective writing before. So, I felt really well heard and really well listened to by the coach as well as the other people in the group that afforded me the time to build those skills because it might have been something that people have done before. And I'm hopeful the people in the coaching sessions will have had similar experiences where we've sort of drilled down into something that they were particularly keen on addressing (P5)

In addition, the coaching groups helped them to address a sense of imposter syndrome and build their confidence (see 3.7.2):

I mentioned like imposter syndrome being a big thing for me and like there's been loads of support given around that imposter syndrome, which doesn't necessarily have a direct link to the course, but I think it's been really useful in terms of my research journey as a whole because it kind of helped build my confidence a bit knowing that I might be in a room with lots of people with PhDs and research experience, but I still can add value and I shouldn't be worried about sharing my opinions so things like that have been really useful for me (P5)

Another participant valued the focus on personal growth and resilience, noting that sharing common challenges helped build connections, provide mutual support, and foster self-belief:

Coaching has been really refreshing [...] and it's not something I've done before. Our group is really supportive of one another. What we were expecting from it, I don't know, but it's certainly given a space each month just to believe in ourselves. And yeah, it's kind of united us in our struggles as well and the common themes that come up and what those difficulties are in different contexts, but it's the same topics that emerge and helps kind of validate where you're at. And that this week it's going to be me that's having a difficult one, next week it'll be you and then I'll be in a better place and I'll be able to explain that “took me a couple of weeks and I had to shake it off. And this is what I did. And resilience comes back” So those are the kind of themes – we're drawing on our own inner strengths (P6)

A third interviewee similarly described how the inclusive coaching space had helped build their self-confidence:

It's helped with my confidence, because I didn't know much about what I was going into, and then with the coaching group I'm able to contribute because they're inclusive [...] everyone is able to speak up. Everyone is able to express themselves and everyone is being listened to (P3)

One of the post-programme comments also noted that the coaching had “*improved my confidence and self-belief*”, with one person translating increased confidence and self-awareness into practical career development and proactive engagement with research opportunities (see 3.7.3):

Coaching has supported my development as an aspiring researcher by helping me clarify my goals, build confidence, and stay focused on my long-term vision. It provided a safe space to reflect on my strengths, navigate challenges, and turn ideas into actionable steps, particularly in shaping my research interests. Through coaching, I've developed greater self-awareness, resilience, and a proactive mindset, all of which have empowered me to pursue research opportunities more purposefully and with a clearer sense of direction

Whilst one interviewee recalled initial uncertainty about what to do in the coaching groups, they described how, over time, they began to use the space to explore course-related issues and seek peer support with professional challenges:

So, when we first started with it, I don't think any of us really knew what to do. None of us had had coaching before [...], I said, so tell me again what this coaching is about, what are we supposed to do? And then she said something and I was like 'oh, it's this' so then I started asking the others 'so tell me about a problem that you're having [...]' So I think we all sort of shared a little bit more after that. [...] And then our last coaching session was literally a couple of days after I'd had a rejection from work [...] and I said I don't know if this is appropriate, but to me it's important [...] and I said I'd really like some professional feedback on how people would deal with that situation and how you feel about it and it was just so nice to have that support from peers who were at the same sort of level as me going actually, yeah, we agree with you. I would have felt the same and I didn't know if I was overreacting or being childish about it. So, it was really good to have that support and it came at just the right time [...] so that was really, really useful (P9)

However, feedback on the coaching sessions was not universally positive. One participant felt the sessions had had limited personal value, citing issues with timing, competing priorities, and a lack of relevance to their current work (see also 3.6.2):

For me, I think they've not been very useful. I think it's just been two hours of listening to a bit of a complaints department. I can say that obviously people are trying to support each other, but I think - and maybe it's where I am at the minute. I've just been in those two hours, I can spend it far better off doing something else for me [...] It's been pushed to when they fitted the time because of when everybody could meet. I've had to miss our team's MDT and I always feel that day is not a good day for me [...] I'm always rushing around everywhere, so it's not been the best day for it to land on, which probably doesn't then help my engagement in it [...] I understand why they've introduced the idea of the coaching, but I think because we're not actually engaged in a research project, I'm stuck at the minute as to what we then kind of take in to it... [...], I have found it a bit frustrating with the time commitment [...] I've wanted to do it and I've wanted to go because I thought, no, this is my time, give it a try, but inevitably I've not really picked anything up from that (P2)

Another participant offered a more tempered view, noting that while the coaching felt less transformative than a previous coaching experience, they still valued the chance to share personal experiences and receive feedback on their research ideas:

I've had coaching before and things kicked off from there and my motivation at work and everything after that increased [...] so I was quite keen on the coaching this time [because of previous experience] and I don't think it's been the same journey, it was kind of half boring in the first session because I sort of had this

objective confidence about it in terms of I've done it and I wasn't sure what journey or what I was going to get out of it this time. There's been a lot of personal stuff discussed between the members, a lot of personal stuff that came out from different people about work, career direction, stuff like that. And then eventually I entered my own sort of crisis point and projected that on everyone else, which helped in some ways. I also tried to share a lot of what I was learning personally and then try and link to resources and things like that which people say helped, but also you get feedback your personality [...] and my idea [...] so from that point of view it helps you test your ideas (P10)

From a facilitator perspective, the coaching groups were seen as a successful part of the programme, particularly for enabling peer support, fostering a sense of community, and “holding a space for inquiry” that encouraged deeper cognitive engagement with personal and professional development. However, one group was felt not to have worked as effectively, likely due to group dynamics and/or personal preferences.

The coaches fed back that the themes emerging in coaching conversations were wide-ranging but consistent across groups. Facilitators noted repeated discussion of burnout and feelings of overwhelm alongside uncertainty about future direction, navigating job transitions, negotiating hierarchies and power structures, and experiences of imposter syndrome. It was suggested that coaches could feed back these recurring themes to the programme facilitators, as they may highlight issues worth exploring further in the online workshop sessions.

3.4.4 Mentoring

Mentoring formed another important strand of collaborative engagement in the programme, offering individualised support for participants to consider their development as practitioner researchers, explore ways of applying learning in their organisational settings, and build professional connections.

Effective engagement in mentoring depended partly on participants' cognitive engagement in recognising its purpose within the programme. By the end of the second session, all but one agreed that they understood the purpose of mentoring, with two strongly agreeing. The same proportion also felt confident about how to identify and contact a suitable mentor, while the remaining participant gave a neutral response, explaining that they were “*indecisive and feel awkward to approach.*” In a later interview, one participant described how they had chosen to select a less senior of two potential mentors, reflecting that this was perhaps due to feeling “intimidated”.

Two respondents highlighted the information provided on mentoring during this workshop as particularly valuable, with one adding that it helped them recognise their own potential to act as a coach or mentor (see 3.7.4):

I understand that I could possibly be a coach and mentor. As part of a team, when asked for help, I have the chance to coach and influence. Acting as a mentor might also help, so I should seek this out.

Facilitators also reported that the mentoring component of the first session was well-received, with one noting that its inclusion created “*space to raise concerns about finding a mentor and be able to give reassurances around this, as some found this a challenge.*” However, there was some concern as to whether finding a mentor was “working out” for some participants, with the suggestion that further support might be available through the university's academic advisor system.

In the third session, mentoring-related feedback focused mainly on questions about timing (see below). One participant noted they had “*managed to arrange a meeting with my mentor in Dec,*” while another asked whether they should “*start our mentor sessions now or wait until later in the course.*” In addition, one participant expressed a need for more guidance on the purpose of mentoring.

At the end of the programme, participants were asked to what extent they agreed that the mentoring had supported their development as an aspiring researcher (see Fig. 22). Ten out of fourteen respondents agreed, including six who strongly agreed. However, 4 respondents expressed uncertainty, selecting a neutral response.

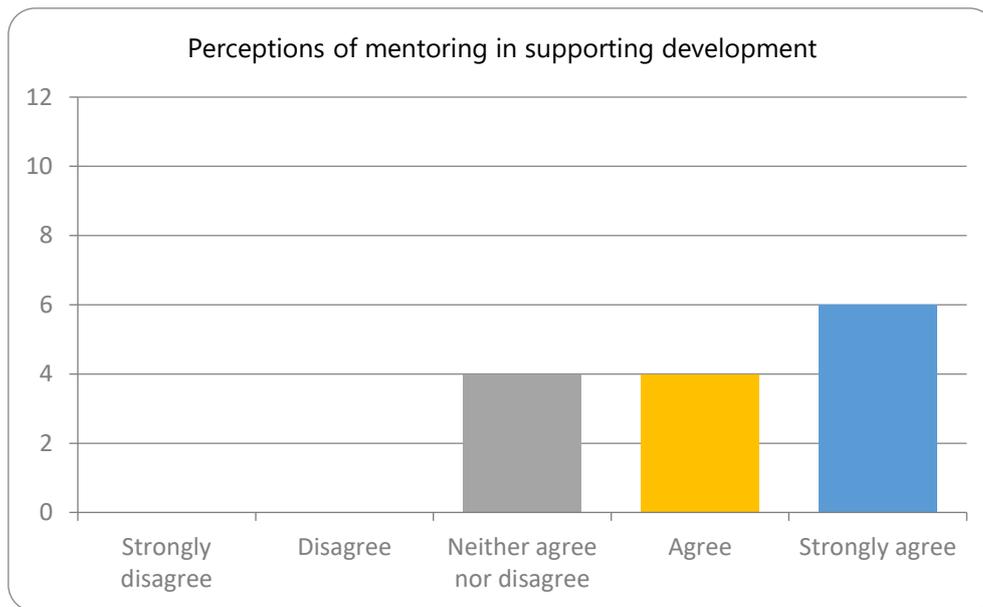


Figure 22

When invited to expand on the ways mentoring had supported their development, participants described a range of benefits. Several reported that their mentor’s guidance had provided greater clarity on their career direction and encouraged them to take on new opportunities (see 3.7.3). For example, one participant described how their mentor had *“helped my career path planning,”* while another noted:

My mentor has signposted me to various things and really made me ask questions about where I hope my direction to go.

For one, mentoring had motivated and supported them to pursue further development:

My mentor provided invaluable support from shaping my research ideas to guiding me through the application process [...] This experience has inspired me to seek further development opportunities and continue building my vision for X, particularly through international collaboration.

Similarly, another commented that their mentor had *“introduced me to forums and other linked courses which can further develop research skills”*, with another adding:

“My mentor encouraged me to do more and gave me opportunities in research”

One participant said their mentor had *“increased my confidence and clarity on my path going forwards”* and another noted how *“their encouragement boosted my confidence”* (see 3.7.2)

Another highlighted the value of a mentor in supporting them to build their networks within the field (see 3.7.3):

Having a mentor that is working on a similar path has really helped to develop a network to which I can hopefully further grow

More generally, positive comments on the mentoring experience included the opportunity to have *“important conversations”* and to *“bounce ideas and get guidance”*, with one participant commenting:

The open conversations have helped and having the opportunity to brainstorm with someone a bit further along in their research journey has been a good asset.

One respondent expanded on the role of their mentor in helping them “*stay focused throughout the programme [...] and deepen my understanding of research in practice*”. They concluded that “*mentoring has been instrumental in my growth as an aspiring researcher*”

However, three comments pointed to a less productive experience, with one reporting that they had “*not utilised the personal mentor*”, another who “*did not have the sessions I was intending too due to lack of capacity*” and a third reporting that “*unfortunately I've only had a couple of opportunities to meet my mentor*”. Despite this lack of mentoring, the latter participant added that they expected this relationship would continue in future, noting “*the two I have had with her had been brilliant and I feel that she will continue to support me and work with me indefinitely*”

In the interviews, one participant described challenges in meeting up with their mentor, beginning with difficulties in finding a suitable mentor and the limited availability of their selected mentor:

My mentoring has been a bit of a struggle. I've had one meeting with my mentor. So originally I think the colleague that had signposted me to the InRes course had done the ECR pathway before and was a potential candidate for being a mentor, but she was also my line manager, so being my mentor, she was saying we're not really getting another perspective so it'd be quite useful to try and reach out to someone else [...] I got a mentor selected from the mentor pool who turned out to be another colleague and she's quite busy. It's hard to pin her down sometimes, so we have got meetings coming up so it's hard to say how well the mentoring's gone because I've only really done one session (P5)

Reflecting on these difficulties, they considered whether they, or the programme, could have acted earlier to ensure a mentor was in place from the outset:

I could have started earlier on and made it a consistent thing from the beginning of the course, whether I approached it too late or whether it was something that was more concrete early on that you need your mentor arranged before the course so they can be with you from the outset right the way through might have been useful [...] I don't know whether that's more me dragging my feet in finding a mentor (P5)

This participant went on to describe further difficulties once mentoring began, particularly the lack of a clear framework for both mentor and mentee to outline its purpose, distinguish it from coaching, and guide discussions:

Once I met with a mentor, it was kind of like we'd gone over some things and then nothing's really happened. And then I sort of followed up and said can we put some more time in. I'm not sure whether the mentor knew how best to approach it [...] it's a bit of a stumbling block [...] I think it would have been really helpful having this framework of what we should cover in each session, because I think part of the problem we had when we sat down was 'well, what do you want to go over?' It could be anything like there's loads of stuff. It's hard without revisiting the work that's done in the coaching sessions and I didn't just want the mentoring sessions to be a repeat of the coaching sessions [...] if it's just me repeating the learnings from the coaching sessions or the learnings from the core session, it's kind of wasting both our time [...] so maybe a bit of a framework on how people have effectively worked with their mentors before, this is the kind of things that they've discussed might have been quite helpful (P5)

Despite these challenges, they noted that their one mentoring session had been useful, particularly in providing targeted support for upcoming assignments:

It's not really happened yet, so it's hard to comment on it really, I've had one session that was quite useful. We just discussed reflective writing again because it's something that I've not really done before and it was something that I was not worried about, but it was more I needed to get this sorted because we've got the assignment coming up that's going to be reflective piece (P5)

A similar experience was described by another participant, who faced difficulties in meeting with their mentor due to their availability, although they hoped to build a lasting relationship in the future (see below):

I think I've had one mentoring meeting because I chose a [very senior leader in Trust], who I've only met once online at a meeting, but she inspired me [...] But she's such a busy person. So, I've managed to have one meeting with her, which was really nice. A really good meeting [...] she had to cancel [the next meeting] at the last minute, so she was really apologetic. So, I've not managed to have another one yet. So literally I'll have had two mentoring sessions through the whole time, so that's a bit disappointing because that's something that I would have found helpful. I didn't choose the right person. She's so busy. So hopefully I'll catch up with her in person and we'll develop a lasting relationship however I can take it forward, but it hasn't helped throughout this course obviously because I've not been able to have that time with her (P9)

They also reflected that, in hindsight, it might have been better to wait for guidance before choosing a mentor, and to have clearer expectations of the role:

I kind of took it upon myself [to find a mentor before the course started], but I didn't know what was expected of a mentor at that point. And then once we actually started the course like three months later, then they said like, oh, if you haven't already got a mentor, we can support you to find one. But because I'd already got one and she'd said that she would do it, I didn't engage with that [...] and I was quite keen for X to be my mentor but in retrospect, it probably wasn't the best idea (P9)

Another participant described a mentoring relationship that did not progress as intended, partly due to changes in the mentor's circumstances and partly because they did not feel the need for a mentor whilst working closely with a colleague on a project:

The mentor I identified ended up moving and I know that she was happy to meet on Teams on a video call, but it just never really took off. I never actually had a meeting with her apart from when I first started. I don't think I've found that I've needed it. Because I'm trying to get involved in this thing at work that I've been working with my service lead with and I don't feel like I've needed to push to meet my mentor [...] it was somebody that I've worked with previously who is in a lecture post now. So I kind of crossed paths with her again last year and she lived locally to me [...] We can go for a walk and have a catch up and then obviously her circumstances changed and she moved away and she's been great and said, just get in touch with me if you want to, but you feel like you're putting on somebody when they've just moved [...] I probably didn't feel like I necessarily needed to reach out, but I suppose maybe I could have done that (P2)

Echoing the views of some of their peers, they also reflected that more guidance on how to approach mentoring may have increased their engagement with this aspect of the course:

Maybe a direction of when you meet with your mentor, these are the questions that you're going to ask them because actually I don't really know anything about what the mentor did for her PhD and what her difficulties were [...] maybe then I would have done it, but it was just meet with them and have a chat, then I've not explored that. (P2)

Others expressed uncertainty about how to engage with the mentoring. One interviewee noted that their limited engagement with the programme left them with few course-related topics to discuss with their mentor. Instead, they used the sessions for broader career conversations and support with doctorate applications:

I think because I haven't necessarily felt the most engaged with the course, I have been doing the mentoring once a month with a colleague who did the course a previous year in-person. So, I guess I've just struggled to have things to bring to my mentor to chat around so I've used that space to talk about career in general. And the course work as well [...] I have used the space with my mentor to talk about doctorate applications, but I'm not sure how useful the course in general has been for that. I think maybe the emphasis on reflection has been useful for that, because as part of the doctorate application, you have to write a reflection piece. But mine was written before I'd applied this year. (P1)

One of their peers echoed this experience, noting that their mentor supported them in strengthening their research profile by building confidence to lead projects, reflect on their learning, and stay accountable in pursuing new opportunities:

It has been good. I feel like I went in like setting some goals. It's someone from my service who I have worked with, but not directly, but they're a lecturer at Uni as well, so more like their research side. And they've just really helped me to have more of a research presence in my current role and just kind of what to ask for, so for example, we're doing staff support groups and people weren't attending and she was like, why aren't you doing evaluation on it and gather that data and then present it? And so that was like a little project. My original supervisor would be like we can't do that, but it allowed me the confidence to push that and be like, no, this is what I want this bit of my role to look like and that's what I want to do [...] It was good to have space to reflect on the research, especially having doctorate interviews coming up. They were able to help me really reflect on my experiences regarding research. So again, whilst doing the evaluation, I presented and disseminated findings and then did like a mini lecture at the uni where they are to kind of practice putting what I've learned in place. And I think I've just found that really helpful just to have someone there that's just specifically for the research. We don't really spend much time reflecting on the course because I think sometimes, I don't have much to reflect on [...], the mentoring side was really useful - it's given me a lot more opportunities and pushed me to get those opportunities because someone's holding you accountable and you're doing this for a reason, so it's kind of pushed me to get there (P4)

Another positive account of mentoring by a colleague described wide-ranging benefits, including complementing the InRes learning by creating opportunities to apply it in practice, connect with new projects, and shape long-term career plans (see 3.7.3):

The mentoring has really helped me put it [InRes learning] more into practice and look at different opportunities [...] they're one of my colleagues who I work with already, they've got quite an extensive research background and now their job is primarily promoting research within the trust [...] During the course there was a study going on [...] I was involved in designing the survey and the thematic analysis of the survey and now I'm presenting at a conference in November [...] It's just been good to do alongside the course and relate what I've been doing to the study [...] It's given me opportunities I might not have had before. And another thing my mentor and me found the NIHR website about ongoing studies within your area and you can search whatever is being recruited to and we found one there that's been relevant to [our] practice. So, we've been involved with that trying to get the Trust as a recruitment site and that's looking quite promising. And I've been the one who's leading on that. So, I'm now looking at doing the Assistant PI course alongside doing that. So, it's kind of just led me from one thing to another that progress and thinking of it in terms of my five-year plan. I found that very difficult to do at first, whereas now I think

going through the course it's made more and more sense and relevance and I didn't feel like that before the course. So yeah, it's given me opportunities and progression really, I think [...] I've got like the first couple of years where I'm feeling a bit more locked in with ideas of things I'd like to do. (P8)

One participant expanded on the value of having a mentor who was also a colleague, highlighting how their existing relationship provided the trust needed to challenge each other constructively:

I've got a great mentor. So, I already knew this person. We work together and I was kind of mindful as to whether I chose them or not because we did become friends and then that was like questionable, but because of the type of people that we are, we can be quite frank and challenging with one another because I feel safe to do that. We've met both in person and online, depending on how busy we've been. It's been so helpful (P6)

This relationship seems to have created a strong platform for continued collaboration and professional development, with the mentor helping to expand networks, involve them in new projects, and support long-term career ambitions (see 3.7.3):

She's put me in contact with lots of other people that can help build my network up. As part of it, I've already been part of a small project. She was leading on something and knew that I had connections in my local area [...] so we got it up and running. So, I've done a bit of research engagement as part of that. And she's helping with my creative five-year plan at the minute. So, I took that and showed her and she was dead supportive. Gave me some feedback as to how I can put across why I want to carry on [...] because I don't want me to have just done this and then stick the certificate up on the shelf and that's it. I want to carry on because I've enjoyed it. I see myself as this is probably something that I could do quite well in (P6)

They anticipated that this relationship would continue to develop in the future:

So, she's going and I'm moving into the same organisation as her as well so that awesome connection will strengthen, which is great. Yeah, it's been a positive experience (P6)

Another interviewee who already knew their mentor in advance of the programme described how their relationship had supported their personal and academic development, extended their professional networks and helped them to strengthen research capacity in their area as well as exploring potential career paths:

My mentor is great. I haven't caught up with her for a bit, that's one of the things on my to-do list, but she's been very helpful to me, especially in helping me develop some of the areas of not just myself, but developing our research offer [...] how we can spread and enthuse other people. So I've been linked in with some of the other research non- medical staff in the ICB where I am and so I've been invited to their monthly meeting that they hold so I feel like through my mentoring I've sort of developed a bit more of a community of practice I suppose because I'm allowed to go to the practice meetings that they have [...] I have met up with her a few times to do the mentoring sessions. We've talked about myself and the possibility of an academic career in developing myself into a researcher more than I am now [...] with the personality sessions, we've had a good chat about those and then discussed the research paradigms and all the research terminology – she was very supportive with that when I was like, Oh my God (P7)

One participant continued an existing relationship with a mentor into the InRes programme who encouraged them to reflect on their learning and share their experiences:

My mentor has been mentoring me even before the course. And to be honest, I've not been the one to book a session because he has been like do you want to discuss it now and I'm like, OK, I will message you when I want to discuss this. And he was like, I really want to see your reflections on the course, because the last

conversation we had he said I've not heard from you? So, I'm going to take my reflections and send it to them so that they can see everything I've enjoyed and benefited from the course (P3)

They went on to describe how their mentor had helped secure them the time needed to attend the course:

To be honest, I made a lot of sacrifices for this course. In the sense that my manager said they were going to support me, but they said we're not paying for it. And I said, OK, if you won't support me, I don't mind, give me my day off on that date I need my course to be done and that's what I said and he agreed and that was because my mentor intervened a lot of times in the go back and forth [...] I gave them all the dates that and that's a good thing that they gave us all the dates so it was easy for me to present all the dates that I needed off so that they can make sure that I'm off on those days It's usually on my day off that I do the other things in my own time (P3)

Their mentoring experience has also been valuable in terms of connecting them with people and resources they might otherwise never have encountered:

Networking was majorly one of the things like meeting people that you don't even know that you would never like come into contact with people that are doing great things [...] that many have even published articles. It's like people that if you eventually want to do something, you can go back to them to guide you through it, or you want to make an application and then they can help you out (P3)

One participant, who did not know their mentor prior to starting the course, also described how they had helped guide them towards opportunities to build their research profile, including drafting an article for publication, submitting a successful conference abstract, and exploring the processes and potential of both systematic and scoping reviews. They also valued their mentor's honest feedback and guidance:

It's been helpful to have those discussions. And to understand when you're heading in the wrong direction because she's said to me – what are you doing? [...] pointed me in the right direction with a few things (P10)

At the end of the programme, participants were also asked how confident they felt about finding a future mentor to support their development as a researcher (see Fig. 23).

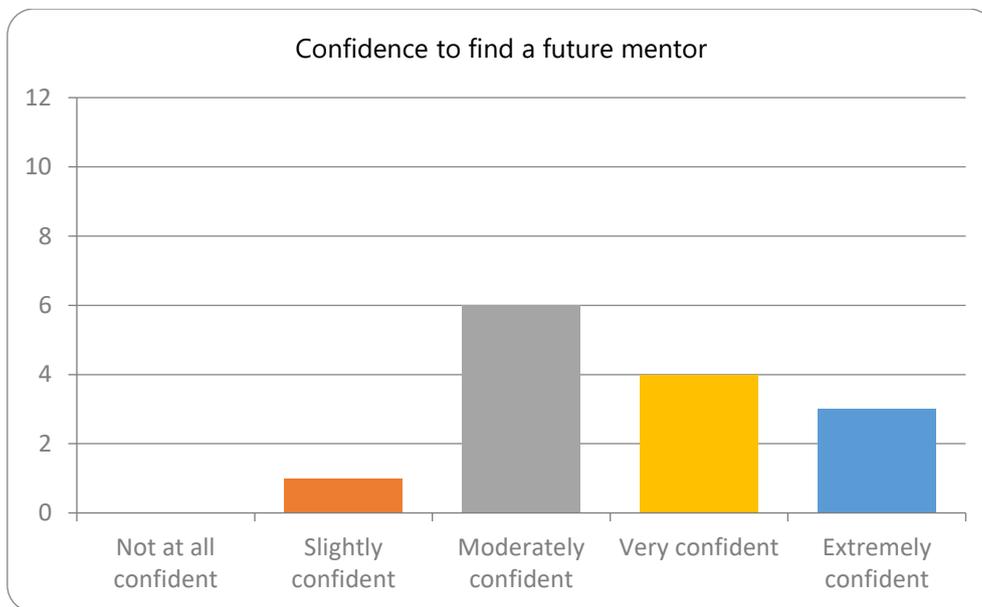


Figure 23

4 of 14 respondents indicated feeling “very confident” with a further three feeling “extremely confident”. The other half of respondents were more tempered in their response, with 6 feeling indicating that they felt “moderately confident” and one only “slightly confident”.

When asked what support, guidance, or opportunities would help them connect with a mentor in the future, one participant highlighted the value of having “*funded roles*” and another pointed to “*links to the university department of my area if practice something which I am in the process of pursuing*”. One noted that they “*have many people in my trust who will support/mentor me*”.

Another participant suggested they would “*use the coaches and mentors from the InRes course*”, and another wrote about having more confidence to find a mentor in future:

I actually feel like I have reached a point where I would have the confidence to approach another mentor in the future but I know I now have the support and guidance of the team from this course as well

However, one person felt that they needed more “*awareness of who to approach and advice on how to start these conversations*” while another felt that they needed to “*get over my personality trait and be braver!*” One person simply commented that they needed “*space away from work*” to engage in mentoring.

More specifically, one person was looking for “*support for my doctorate application and thesis*”.

These responses suggest that while many participants felt confident about finding future mentors, a similar proportion lack confidence in this regard and highlighted practical, personal, and structural barriers to starting a mentoring relationship in the future. However, a number of participants highlighted their intention to continue the mentoring relationships established during InRes as a foundation for their ongoing development.

3.5 Social engagement

Whereas collaborative engagement emphasises learning with and from others (see 3.4), social engagement is centred on building relationships, trust, rapport, and fostering a sense of belonging within the learning community. Social engagement both supports and is reinforced by other forms of engagement. For example, social interactions help to create a supportive environment in which participants feel comfortable sharing personal reflections, contributing to discussions, and engaging more fully with the programme. These behaviours, in turn, further strengthen social connections and sustain ongoing engagement.

In this evaluation, social engagement was evaluated in terms of the degree to which participants felt that they had developed these kinds of relationships with peers and facilitators.

In the early stages of the programme, participants and facilitators were asked whether they felt there were sufficient opportunities to get to know one another. Facilitators generally agreed that the induction successfully laid the groundwork for building social connections, with activities such as sharing photos and personal stories identified as creating valuable opportunities to "*share about ourselves*" and foster early rapport. However, as discussed above, one participant noted that the personal and potentially sensitive nature of some topics could create discomfort and lead to disengagement (see 3.2.1).

One facilitator described the session as "*a good opportunity to get depth and insight into the students on a personal level,*" noting strong facilitator–student interactions during the induction and in accessing follow-up technical support. Another reflected that the session felt "*light, connected and fun,*" while a participant commented that it helped them "*get to know people a little better.*"

In the first session, 11 of 12 respondents agreed that there were sufficient opportunities to get to know their peers, with four strongly agreeing and one remaining neutral. Most participants (11/12) felt they were getting to know their peers "to some extent," and one "to a great extent" at this stage. All but one respondent also agreed that there were sufficient opportunities to get to know the facilitators, with one neutral response. One person commented in the post-programme feedback that "*staff were always available at any time, although difficult to form relationships initially, it was easy to get hold of people*"

One interviewee highlighted that an early activity involving a call with another attendee provided a gentle push out of their comfort zone to start building connections and getting to know their peers within the group:

The first thing they did was to call a random person. So, it was something that I would not normally do. I initiated the call and it was nice to speak to somebody and have that conversation with somebody that you don't even know and you're meeting for the first time and to know the reason why they're doing the course. I enjoyed that part [...] you can understand why they started off like that because everyone was more like connected to each other (P3)

In a similar vein, small-group discussions were also identified by two respondents as a particularly valuable way of supporting social engagement during this session (see 3.4.1), while others noted the value of connecting through "*hearing others' expectations*" and discussion of different learning styles. Facilitator feedback similarly emphasised a sense of togetherness at this stage, pointing to positive peer interactions and participants' willingness to share hopes and fears. One facilitator remarked they were surprised by how quickly the group had begun to build these connections online, though another expressed concern that the diversity of research experience might hinder cohesion and risk some participants feeling excluded.

In the second session, all respondents agreed that they had been able to get to know their peers better, three of whom strongly agreed. One participant noted that the scheduling of the first two sessions in close succession had supported continuity and strengthened social engagement:

I think the two initial sessions being close together has helped continuity and helped forge better relationships with the delegates.

All but one respondent also agreed that there were sufficient opportunities to get to know the facilitators during this session, with one indicating strong agreement. However, one participant strongly disagreed, suggesting that "more group sessions" were needed to build stronger relationships with facilitators. Some facilitators also pointed to the need for more structured opportunities for relationship-building at this stage, but the icebreaker used in the second workshop was felt to be particularly effective in strengthening social engagement.

By the third session, all but one respondent agreed that they had been able to get to know their peers better, with two strongly agreeing and the remaining participant giving a neutral response. Five of the seven respondents from the fourth session also reported feeling part of a community with their peers on the course, including two who strongly agreed and two more providing a neutral response. When invited to suggest ways to strengthen the sense of community, several participants offered positive reflections on the social engagement achieved so far:

I think the course is doing everything right so far. The only reason I haven't put strongly agree as it is still fairly early and I missed the first 2 sessions

Already well supported

One participant commented on the value of working with the same people in the small group discussions in this regard (see also 3.4.1):

I think it is naturally coming together. I really liked having same/similar group members for this day.

During the early workshops, some facilitators also noted interactions on WhatsApp as a sign of positive social engagement. Similarly, some interviewees highlighted the sharing of personal images on WhatsApp as an effective mechanism for building social engagement:

The WhatsApp has been really good. So that's been interesting seeing people put pictures on – that's one of the things that we had to do at the beginning was to put several images on and pictures of what you were doing. And sometimes, if we were out on our lunch, we would post a picture and then obviously people would see it throughout the sessions. So, I think that's been really useful (P7)

I think they've really tried to create that [community] because I know they've got the WhatsApp group and they've encouraged pictures to be sent at break times and stuff which has been nice. (P1)

One participant suggested making greater use of the WhatsApp group as a way to further strengthen social engagement within the cohort between sessions (see below):

Connect with WhatsApp more socially each week with some more general light-hearted content.

However, several participants reflected on the challenges of building social connections online compared to in-person programmes:

I've not got to know people as much as you would be able to in person (P6)

I think even if the sessions were totally online, even if we could have one or two meet in person points. That might be quite nice, but I don't know if other people would be up for that (P1)

Online learning can be hard to build connections with people.

One participant reflected that the slower pace of forming connections online meant there was insufficient time to make the most of them during the lifetime of the programme:

I feel it took us quite a long time as a grip to get to know each other, and when we did, it felt like it was all going to be over to soon. I don't know what the answer is though- sorry! [...] just wish I'd felt this 'closeness' earlier in the process

Others added that online learning limited opportunities for informal social engagement during the breaks:

Difficult in an online environment, it's slowly getting there and I'm not sure what else you could do. It's a shame, because in those long lunch breaks; I think the size of the group would be perfect for getting to know each other, don't know how you could facilitate this any better online though

They're very good at trying to get you to know people better, but just the nature of it being on Teams makes it 10 times harder. So, I feel like that has been a downside, but it'd be stupid not to think that was gonna be a downside of it compared to if you were doing this face to face, meeting up with people, sitting having lunch with them [...] I wouldn't necessarily change that at all (P8)

The interactions - I probably the one thing I might say is that you don't get the coffee break natter or the lunchtime discussions that you might have had because obviously when it goes to the break time or lunch time, we all disappear off screen and go (P7)

When you go on a course, you have those like coffee breaks sometimes to chat to each other about not necessarily course related things, but just to kind of build us like rapport. (P9)

One interviewee suggested that occasional face-to-face meetings could foster the casual conversations and personal connections difficult to replicate online, and may also support the longer-term sustainability of these relationships. They acknowledged, however, that their preference for in-person interaction might be partly generational:

I would definitely want face to face sessions in there if it was practical. Probably not all of it. If people just met like every quarter. Everyone's only really about an hour away. It's not far, is it? We're all in the northwest. Maybe if you'd like ask that question to a younger generation, they'd be quite happy with it as how it is [...] I think if you meet in person you're more likely to kind of feel a little bit more of a human connection [...] and then ask that rough idea where everybody works [...] and I could be like you know what, I had no idea, we could meet for a brew [...] So, I think it kind of misses that because there's no opportunity informally to just ask those little bits like, oh God, yeah, the motorway was a nightmare. Or did you go down that bit – just little human bits of chitchat, little social aspects about people without having to ask, - you only ever see this part of somebody so you can't go "I love your shoes" or "where did you get that handbag from?" "Oh, do you like that shop too?" (P6)

They also noted the added value of in-person interactions in supporting experiential, relationship-based learning:

I guess that's where the value is in people. Are you here to learn about a topic and you can very much read and be presented to in that way, but how much of it is experiential learning? (P6)

One interviewee, however, noted that a 15-minute phone call activity in the first session helped to recreate, to some extent, the kind of informal interactions that would normally take place during in-person breaks.

One thing I liked that we had to do was - and I didn't like it at the time, but I really saw the point in it and I think it was a really nice thing to do - was to call someone. You got given someone random in the group on the first ever session and to have a 15-minute phone call with them during the break. To connect with them

and that was obviously terrifying at the time, you don't want to do it, but like once you're doing that call, I was like, that's just a really nice way, especially being online, to get to know someone. Only 15 minutes but you end up learning loads about them. So that was really nice. So, I think some of the things they did was quite unique and I think they did land and then some of the things didn't so much (P4)

One participant proposed that an initial face-to-face meeting would better facilitate this kind of informal, social interaction, laying the groundwork for building relationships and networking over the course of the programme:

I think if there was to be some [face to face], I'd do it at the beginning because then you could meet people and maybe again at the end. So maybe it's meet at the start and then people would feel a bit more comfortable if they then wanted to reach out and maybe even arrange something because I suppose some people might have seen someone that they think 'Oh, I wouldn't mind talking to them a bit more', but they might feel a bit awkward just sending a message Whereas if they would have met them face to face, they might feel a bit more comfortable with that. And it does give you a bit more of a chance for just that informal chatter [...] not just what have you done at your weekend, but just more about. career opportunities (P2)

One interviewee emphasised the loss of these informal moments for fostering rapport and supporting networking:

I think the thing that we do miss out on is that community aspect like talking to each other in the breaks, I think that you don't get to know your peers and for me I went on the course because I wanted the network side and to develop my people skills and leadership side of things and stuff. So, I feel that kind of missed out a little bit there [...] when you go on a course, you have those like coffee breaks sometimes to chat to each other about not necessarily course related things, but just to kind of build rapport. And we've mentioned this at the coaching groups and they did bring in that sort of extra forum where we could chat to each other, but I don't know if anybody's used that (P9)

Similarly, another interviewee suggested that including at least one face-to-face element could strength community, support more personal connections and greater comfort in online engagement, which, in turn would foster deeper social engagement:

Another interviewee likewise proposed that at least one face-to-face meeting could help strengthen community, support personal connections, and increase comfort with online collaborative engagement, which, in turn would encourage deeper social engagement:

It would have probably benefited in terms of building a better community connection within the group by throwing an extra face to face meeting in. Either once or twice throughout the course [...] having something mixed in the middle to kind of remind everyone why you're there and remind everyone who everyone is might have been good [...] I don't think that would have added that much to the course in terms of the learning, bit it might have helped more along the lines of building that better community connection, maybe helping people that are a bit more apprehensive on calls to come out of their shells a little bit, which might have had an impact on some of the focus groups [...] maybe a face to face catch up slotted in, even if it's just halfway in the course might be good for some people just to remind everyone that there are human people behind the screens (P5)

A comment in the post-programme evaluation reiterated this view:

I would recommend an occasional face to face thrown in, if possible, to help build that connection and make group working easier.

In lieu of any face-to-face opportunities, some participants felt that the opportunities for collaborative engagement, particularly the smaller group discussions, offered some important ways of fostering social connections with their peers:

They're very good at trying to get you to know people better [...] I think they've done everything they can, like they did breakout rooms, they give everyone an opportunity to speak and talk about something, whether it's a reflective bit at the end of the day or sometimes it's been during the day, like bringing a photo, putting that on the WhatsApp group just so that everyone's involved. And then like the breakout rooms, everyone has a chance to speak because you're in smaller groups, I don't really think they can do a much better job than what they've done with that. It's been very interactive and has got you involved with those types of personal things (P8)

When there's people in the group, you're like 'oh, hi again' and it's very friendly and I know that's probably because of the many breakout rooms you have with different people each time. So, I have managed to have some connection with everybody, which is really nice, because I don't like being in that big of a group on Teams. So, I think to even achieve that is amazing - you only see each other once a month and to look on the screen and know that if I was in a breakout room with anyone, I'd know a bit about them and I'd feel comfortable. So, I think they did quite well with getting that sense of community (P4)

One participant also observed that they built stronger social connections with peers who engaged collaboratively during the sessions and were willing to show vulnerability in the virtual environment:

In the broader session, I think it's probably been a bit easier for people to hide away if they're a bit introverted and as a result I wouldn't say I feel like I've not got to know that person just because I've not really interacted with them [... a sense of community and connection] is more with the "the usual suspects" that would put forward their opinions and be a bit more visible on the call [...] And it's natural to kind of feel a bit warmer to them because they're the ones that are putting forward ideas [...] I'm making himself a bit more vulnerable on the calls. Whereas it's probably a bit harder to reach out to some of the people that are a bit more sort of closed off. [...] It probably boils down to personality type, because if you're in a focus group, you naturally feel like you're connecting more with the people that are happy to voice their ideas. Like I'm quite sort of visible in terms of engaging with whatever session it is that we're doing (P5)

On this point, several interviewees identified the coaching groups as the settings of strongest social engagement, where social and collaborative dimensions reinforced each other through facilitation that supported strong emotional engagement by creating a safe supportive space that encouraged trust, openness, and shared vulnerability (see 3.2.1). Similarly, another participant added that effective collaborative engagement depended on first feeling comfortable with and getting to know others (see also 3.4):

I think at the start, definitely not [feeling comfortable to participate], like it takes me a minute to sort people out and just get the vibe before I put myself out there. I started doing that on like session three or four because I set myself the target that I was doing that (P4)

To this end, one facilitator suggested providing "buddies" or "home groups" alongside the coaching groups to provide a more consistent point of contact, enabling deeper connection and ongoing peer support. Some also noted that a consistent 'core' team of facilitators could help foster closer relationships and a stronger sense of community across the programme (see 3.8.5).

3.5.1 Creating opportunities for informal connection

As highlighted above, participants described how online learning restricted informal social engagement during breaks. Participants and facilitators also agreed that, overall, opportunities to connect and build relationships,

whether in breaks, at the end of workshops, or between sessions, were too limited. Whilst it was generally recognised that adding more online social activities on workshop days would exacerbate screen fatigue, some participants and facilitators felt that additional between-session interactions were important for sustaining and strengthening connection, cohesion and community.

To address this gap, several ideas were proposed for informal online spaces including virtual coffee rooms, pubs, or 'water coolers', and increased use of WhatsApp, though the latter did not naturally evolve into a social forum as it had done in comparable face-to-face programmes (see below).

Some facilitators stressed the importance of using platforms other than Teams and Canvas to create space for informal social engagement. In contrast, others suggested integrating more opportunities for social and collaborative interaction directly into programme activities, for example by using Canvas to enable informal discussions around specific topics. Another suggestion in this vein was to schedule one-to-one conversations with facilitators and peers between sessions. For facilitators, this approach would also provide opportunities to offer tailored support and feedback, gauge individual progress and adopt a more pastoral role.

As a result of these discussions, the delivery team introduced a "common room" on Canvas mid-way through the programme for participants to 'drop-in' for informal conversations with peers. Although participants were aware of this space, none reported using it.

I think they made like a common room on Canvas, but I don't know if that worked or not. To be honest, I haven't accessed it (P1)

They bring in that sort of extra forum where we could chat to each other, but I don't know if anybody's used that (P9)

One participant explained that weak, existing social connections made engagement with the online common room more difficult, and doubted whether such a forum could meaningfully foster closer social ties:

There's definitely aspects of the course that we as course users have underutilised, like there's online spaces that you can access at any time to engage with people around the course, but I don't know if anyone uses them. I've not used them yet and there is a little bit of guilt that I've not used them, but I've just not felt the urge to go on. I think the problem with it being an online course is naturally I don't think you're going to get that same connection with people as you would do with some of the face-to-face courses [...] that's been probably the only issue for me is that it makes it a little bit harder to engage with people. (P5)

Another added that not utilising the common room was partly due to a lack of understanding of how they were expected to use the space:

I haven't used the common room. I'm not sure we've utilised that as much as maybe we could have [...] to be honest, I actually haven't had a look and I don't know how it works, so that maybe something that I didn't pick up at the beginning, so I haven't used it. I don't think I've really looked into it or tried it or anything (P7)

One interviewee echoed this point, suggesting that the common room needed a clearer purpose and design to better support social engagement between workshops:

I think between the months it can feel quite disconnected. I wonder if there was perhaps more options for that, inflexibly, like the common room, which I've not myself had a look at yet because I'm not sure how I

would use that space. If there was perhaps another one, or maybe it was a topic perhaps. Maybe people might consider it [...] I was thinking like something that cropped up for both myself and another member of our coaching group, both had had been for interviews and were unsuccessful, and it really put a filter on our outlook for that week and I brought it one time [to the coaching group] and then this other person brought it to another one. But it was having to wait for that. And I wonder whether because things that happen on a day-to-day basis for the 20 odd people on the call, if there was perhaps a space (P6)

This participant also noted that diarised sessions tended to engender greater commitment to these kinds of opportunities and that some people might not feel as “comfortable to [...] be as vulnerable with one another” in this kind of forum compared to the coaching groups. They also reflected that WhatsApp had supported informal interactions between workshops, as it was neither primarily used nor explicitly framed by the facilitators as a space for more personal, social exchanges:

[WhatsApp] hasn't worked like that. I don't know why, but it doesn't feel sort of quite personal. It feels a bit more corporate and perhaps maybe that's just because at the minute the facilitators are posting prompts on there to remind people. But maybe they wanted people to just post pictures of what we did at the weekend or a nice piece of work that they did during the week at work. Or just a meme that says 'happy Monday morning, hope your week goes well', like you do in your own little teams. But no one's kind of kick started that and not everyone buys into that (P6)

Facilitators reflections on the lack of engagement with WhatsApp and the common room as potential spaces for social engagement mirrored participants' feedback. Facilitators stressed that clearly defining the purpose of any platforms for social engagement and embedding their use from the outset would help normalise participation and strengthen engagement with these opportunities across the course of the programme. They also recognised, however, that time pressures might deter some participants from engaging in additional social activities between sessions and cautioned that low uptake of these kinds of opportunities could adversely affect an overall sense of group momentum.

3.5.2 Sustaining community

As noted above, most participants felt the strongest sense of social engagement and community with their coaching group, with a number of people expressing a desire to sustain these connections beyond the lifetime of the course. However, most agreed that they had also developed a degree of rapport and connection with the wider cohort. From a facilitator perspective, the cohort was viewed overall as a “well-integrated group” despite diversity in age, gender and research experience and the challenges of building relationships online.

In this way, some participants also articulated a wish to build on the wider connections and sense of community established during the programme. As one comment in the post-programme evaluation noted “I do feel that I'd love to keep in touch with the group”

Although there was limited social engagement on WhatsApp, two interviewees explored it as a possible way of staying connected with peers, although they felt it was unlikely to remain an active space for social interaction:

I'll stay connected. I can't say I'd speak in it unless someone else spoke, but I'm not planning on just leaving it when the course finishes it. (P1)

In terms of the whole group, they're all there in the WhatsApp groups, but I don't know whether I would link to them (P7)

Instead, one participant suggested creating a more intentional opportunity to reconnect with the whole group and provide mutual support after the programme had concluded:

I think what might be interesting is to - whether there's a post catch up, like a six-month post catch up or anything like that [...] see where everybody's up to, have you got any questions, is there something we can help you with, are you applying for anything? I think that that would be beneficial, even an impromptu one that maybe doesn't necessarily involve all the leaders or anything [...] I think it's an important part of just that checking in, seeing if anyone's shining and doing anything really exciting is always good to hear, isn't it? (P7)

Another participant expanded on this idea, highlighting the value of a continuing structured space that could sustain community, build on their learning and confidence from the course, and provide a safe environment for those returning to workplaces where support for researcher development may be scarce:

I suppose the only thing really is about the group and if there's anything that's been suggested or considered for how people can stay connected afterwards in a more sort of personable way. Just to try and build on it. So, I think there probably are people that have connected well and just might need something more formal to make it happen. I just wondered there might be some people on the group that might still need that supportive community, their line manager might have gone 'yeah, can go on that course, but it's in your own time' and 'right, it's finished, now, can we get you back on board with your day job?' And actually someone might have really got a lot out of this, but might need the backing to go "we're going to carry on" or "we've developed a community of practice, and once every three months we're going to meet and I need permission to be able to do that" I'm the type of person that would just do it anyway and not care, but others might not [...] It's just that continued safe space to explore while a lot of this is in its infancy and there's still a lot of unknowns and to take the sort of learning and language back into your own team where no one's got a clue what you are on about and 'where have you been for the last six months?' You still need to have that outlet so you can continue to have that nurtured and remember why you did it and how much you enjoyed it. (P6)

One participant suggested a face-to-face celebration event to help cement the emerging social connections and sense of community:

If in the scope of the course with funding etc, it would be lovely to do the celebration event in person. Get to meet the faces behind the screens in person.

Another comment echoed this recommendation, adding that it would provide a forum for participants to build and strengthen their networks:

I would really like to meet some of my classmates so I would really like - I thought the celebration ceremony would probably be face to face, so that at least we can meet each other because that's what the networking with the research is about when you meet outside after the course (P3)

Suggestions for sustaining the community beyond the programme highlights the value participants placed on the relationships they had formed and their desire to maintain them. One participant, for example, described appreciating the network they had developed and the chance to stay connected with peers from different organisations and clinical roles:

It's been really nice to get to know people and it's nice to have nice people in my network and I would consider that and I just think it's good to keep in touch. So, I think that's been a nice thing too [...] In my role, there's always those kinds of links and there's always people to talk to about it [research] but I still think it is nice to have people from other organisations and other clinical roles [...] you meet these people and you're like, wow, you're doing clinical trials, which are just amazing. So that's been really nice to understand

different people's like projects and passions [...] I think the connections that I've made are important and I'm not planning on distancing myself from that. (P4)

In contrast, one participant felt they had not developed the connections needed to sustain contact with peers:

I would say when I come away at the end of this course, there's nobody who I feel that I made a connection with who I'd keep in touch with because either I've got on really well with them or because it might be useful later or something like that (P9)

Another participant remarked that feeling a sense of community “doesn’t matter to me,” but acknowledged that the programme offered potentially valuable networking opportunities, even if they had not benefited from the course in this way:

“It's been nice meeting people and seeing kind of where other people are kind of based and working, and I think when you've got to know some people, you might have found other people that have similar research interests, so that networking. But I don't think that's come through massively for me, but it's been good (P2)

Two expressed that belonging to a community of practice was not something they especially valued, one putting this down to personal preference “not to be too involved with people”. One person reflected that community was “an added bonus”, but did not view this as central to their learning. As a result, they sometimes struggled to prioritise the programme’s focus on relationship-building over the competing demands of their professional role:

I feel very much in two minds. I know they're really trying to get some of that relationship and rapport potentially. But like, if you've got appointments and people to see and stuff like I think we've been doing, I can't help but think I could be doing X, Y and Z (P1)

From a facilitator perspective, particularly those from learning and development backgrounds, building connections and fostering a sense of community was seen as central to the learning process, essential for sustaining engagement, and a vital outcome of the course (see 3.7.3.4).

Some facilitators discussed the challenges of fostering social engagement online compared to in-person programmes, noting a tension that whilst the online environment could make interactions feel more immediate and intimate, social connections often took longer to develop. One example was camera use, which could simultaneously enable openness and vulnerability while also hindering the strengthening of social connections. One person also noted that the ‘passivity’ of a lot of online learning formats could also shape participants’ expectations about the degree of interaction and connection in an online programme.

Overall, facilitators felt that a face-to-face meeting at the start of the course would be the most efficient way to build the psychological safety and sense of community needed to support and sustain social engagement. Meeting in person, away from distractions, was seen to create natural connections and embodied experiences that helped break down barriers to trust and collaboration, and accelerate community-building. It was anticipated that this experience, in turn, would strengthen online collaborative and behavioural engagement creating the conditions for deeper cognitive engagement with the course content.

A mid-point face-to-face session was also seen as valuable for consolidating the emerging community, gauging progress, and sustaining momentum, while a final celebration event was valued for helping to sustain community and strengthen their networks.

3.6 Cognitive engagement

Cognitive engagement refers to the ways in which learners actively process knowledge, encompassing both surface-level to deeper forms of engagement. At a surface level, this may involve recognising and recalling key ideas or demonstrating basic comprehension, for example, understanding the aims and objectives of the programme and recognising their relevance to personal learning goals. At deeper levels, it extends to integrating complex ideas, finding relevance in new information by aligning it with existing knowledge, and applying critical thinking to evaluate information and arguments. Cognitive engagement also includes critical reflection, whereby learners examine their own assumptions, experiences, and development.

3.6.1 Understanding programme aims

An important starting point for evaluating cognitive engagement is understanding participants' comprehension of the programme's overarching goals and the way in which it was structured in relation to the Vitae RDF as a framework for researcher development.

At the end of the programme, all respondents agreed that they understood the programme's aims and objectives, with 8 of 14 strongly agreeing (see Fig. 24). Understanding of the alignment with the Vitae RDF domains was slightly less certain; 7 agreed, 6 strongly agreed, and 1 gave a neutral response (see Fig. 24).

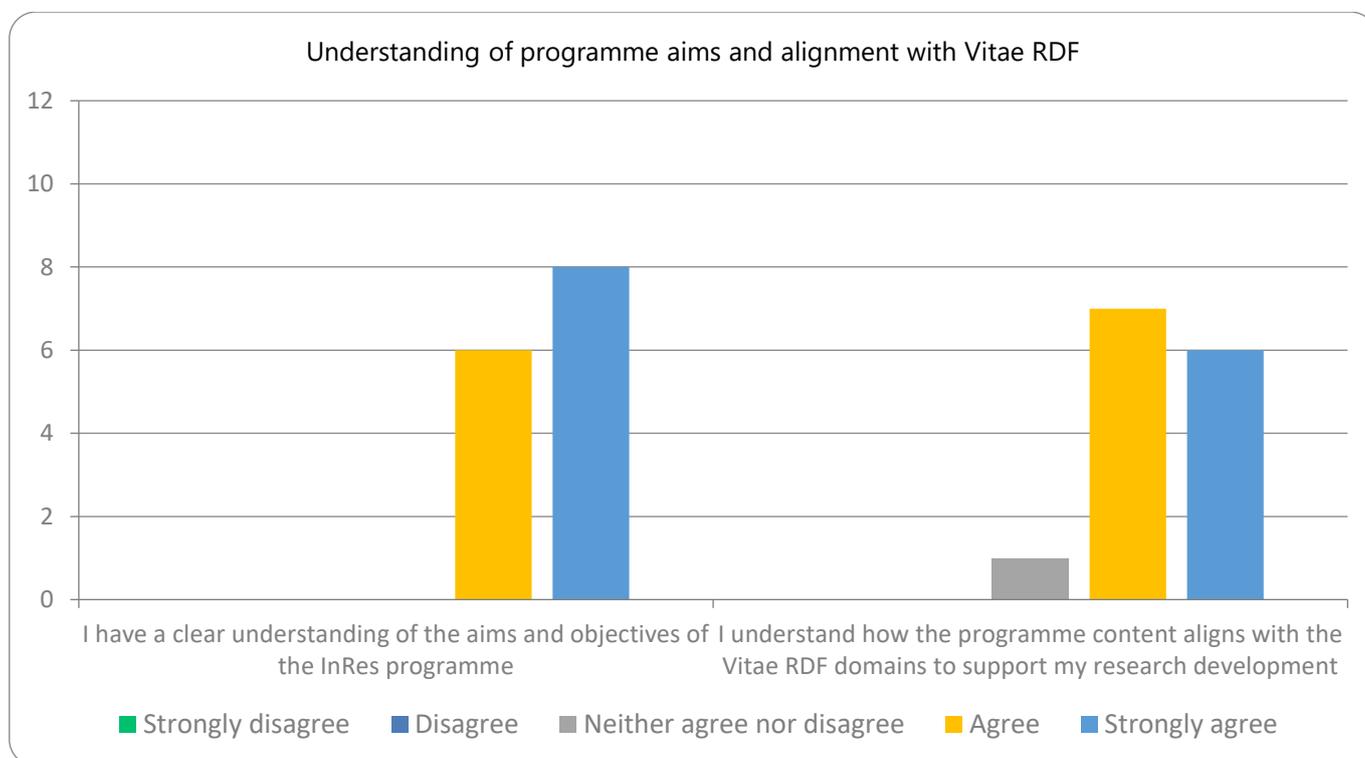


Figure 24

For one participant, the RDF was a valuable tool in helping to clarify the programme aims as well as making sense of their development over the course of the pilot:

Using the RDF has meant all the aims and objectives have been very clear and doing the questionnaire prior to the course and on the last day has made the development more relevant/visible

One interviewee reflected how the RDF also supported them in thinking about their ongoing development:

They've all [sessions] been helpful. The structure they used according to the research development framework is good. I like that and it gives you a clear structure of what sort of aspect you should be wanting to achieve (P10)

In the early stages of the programme, the evaluation examined the extent to which participants were able to make connections between the workshop content and the programme aims and objectives.

All respondents agreed that they understood the purpose of the induction session, and all but one reported understanding the purpose of the first and second sessions. In the first session, 10 of 12 respondents agreed that the topics were relevant to the programme's overarching aims, including three who strongly agreed, while two gave a neutral response. By the third session, all respondents reported understanding the purpose of the workshop activities, and in session four, 7 of 9 agreed (four strongly), with one neutral and one disagreeing, the latter questioning the relevance of the model used:

Needed to explain how the model could be utilised fully before we began to do the exercises. I couldn't see its relevance until the end which would have concreted the process in my memory

Another added:

Felt the model was a bit confusing, think this needed explaining more initially and how this fits within what we are aiming to achieve.

Another participant later commented that they "sometimes struggled to find the focus of the day".

One interviewee reflected that participants differed in how readily they understood how the programme content connected to its overarching aims. They noted that those with less research experience often found it harder to make these connections, whereas their prior experience made it easier to appreciate the rationale for focusing on professional and personal development:

Certainly, in our coaching group people have been a bit like, I don't know what all that was about [...] There's been quite a bit of negative feedback from people who are maybe newer to research than I am that they've found it difficult to piece it all together and to get that kind of flow of where is this going? Whereas I think because [...] I've actually got quite a lot of research experience, it was that kind of people skills, networking that I was struggling with (P9)

They suggested that the difficulties some participants experienced in "putting all that together" may have partially stemmed from the spacing between sessions and the "capsular" format of the workshops. Whilst acknowledging that the course had "been a little bit disjointed sometimes" and "perhaps a little bit up and down," they also recognised this was partly about "giving us a taster of lots of different things."

This participant also recognised the RDF as a useful way of articulating how the programme's overall aims and objectives related to the content of different workshops, although they felt it was often difficult to navigate in practice. They suggested that a simplified "map" showing how the sessions connected and built upon one another could have made it easier to see how the different workshop topics fitted into the overarching aims of the programme:

I know [they] gave us the RDF wheel [...] but I remember looking at it for like 2 weeks [...] and going I don't know what the hell they expect me to do with this [...] So I can imagine [being] confronted with that, people probably just looked at [it and] have gone, oh okay [...] It's clear now that each of the sessions they've been building into that framework, but maybe putting that in a simplified form with like a map of where we're going, this is why we're doing this [...] how these things actually fit together in the longer term [...] and you know, trust the process, it will all come together (P9)

Yet, they also recognised the value of participants making the connections for themselves and applying it to their own context, with their peers needing to "trust the process":

I don't know what the answer to that is really because it's like you've got to keep a little bit of mystery. You can't throw it all at everybody from the start, can you [...] And because I am really open minded about stuff like that I've just enjoyed each session on its own [...] I don't feel like it's going to have a concluding endpoint [...] I don't feel like it's going to all come together with one miraculous flurry of everything at the end, but I think that we've been given all the tools throughout the course to piece it together. I think it's still a bit of a jigsaw and that it's still our job to put those pieces together and find the other bits that we need to make it suitable for us [...] when you've got that wide range of levels of experience in the course participants, then it's really difficult to pitch to a suitable level for everybody. So, you've just got to go in with an open mind and take what you can from each session (P9)

Another interviewee made a similar observation:

I just think that the first introductory class, it was quite short that day, but I just feel maybe it would have been better to have just gone through how the sessions would be. So, you prepare your mind that this is why you're doing this. Maybe that would have made me understand that we're getting somewhere so you're not like for each session thinking that we will be getting stuck into something about proper research and then we're talking about something else like creativity. I know they're all related [...] Each one you would understand why it's related, but I would like that at the end of each section they explain to us why or ask questions to help you understand why they did the topic and how it's related to research. It maybe would have helped, but then again everything has advantages and disadvantages. The advantage might be that it increases the curiosity that you want to know why you are doing this. [...] but maybe it can be something that they could attempt to just let people know that we're going to do something like this, at the end of the day we will explain why that is related to research so that people are not just like confused on why they're doing that (P3)

However, in retrospect, several participants observed that while they were initially uncertain about the link between the workshop content and the programme's aims, this became clearer over time:

I think it took a few weeks to understand how everything was going to fit together and a couple of weeks I was unsure what I'd learnt, but like a good crime show- it all came together at the end. It was like doing a jigsaw, sometimes the pieces went together and you could see the picture developing, and then you'd get a piece that just didn't seem to go. That odd piece can sit there and your mind keeps going to it- why is that there? Does it belong, how will it fit in? But then once all the pieces are there and you're still unsure but you place that final piece and it suddenly makes sense

I think it has all started to come together

It's made more sense now, it's starting to come together

One person described how the aims and objectives became clearer once they began applying their learning in a professional context, particularly in recognising the role of psychological safety in fostering learning and enabling change.

It's become clearer as I began to link the theory to practice each week and relate to my own service and how influence is shaped by a supportive safe culture open to learning

One person simply noted in their post-programme feedback that it was a "well-structured programme with clear links to why we were looking at certain topics and why they were important to the overall picture."

Taken together, these reflections suggest that while participants' understanding of the relationship between the programme's aims and individual sessions varied and sometimes developed only gradually, most came to see clearer connections as the course progressed.

3.6.2 Perceived alignment to individual aims and expectations

An important dimension of cognitive engagement relates to the extent to which participants perceive programme content as meaningful to their own learning and growth as practitioner researchers. This sense of relevance may be both practical, for example linked to their research career ambitions, and personally meaningful, for example through stimulating intellectual curiosity or increased self-awareness. Perceptions of personal and professional relevance can, in turn, shape how participants understand the relationship between the workshop content and the programme's aims and objectives. Furthermore, as discussed in 3.2.2. perceptions of relevance also carry an emotional dimension, sparking motivation, interest, and commitment to learning, which in turn can translate into greater behavioural engagement.

As perceptions of relevance are central to sustaining cognitive engagement, facilitators were attentive to whether participants felt the content was relevant to their diverse development needs, and whether it aligned with their expectations of the programme. After the first session, some facilitators expressed concern that this might not be the case for some of the cohort, with one participant questioning the relevance of reflective learning in the context of developing their research skills:

I am more interested in research, how to improve or develop my research. If we know nothing about reflective learning at this point, we would not have qualified

Another noted that they had encountered learning styles "many times" before, although they acknowledged its value in supporting social engagement (see 3.5). In contrast, one participant expressed an interest in exploring "alternative learning styles, surveys and models" indicating that they found the content relevant to their ongoing learning and development. Another highlighted the learning styles exercise as a particularly valuable part of the session:

I was intrigued by my learning type result and reflected on this and found this really interesting to understand how different 'facets' of myself (alone and public persona) were very, very different

One of the post-programme comments echoed this view:

Identifying learning styles and how being an extrovert can impact on reflection. I learnt a lot about myself

At the end of the second session all respondents agreed that the content broadly aligned with their learning aims and expectations of the course. One person noted that this workshop had helped them come to a "realisation that some areas where I've not been progressing are down to points of personal indecision and internal conflict". Another added that they were feeling "very reflective" at the end of this session, explaining that the workshop had "allowed me to gain some clarity and feel more relaxed about [...] a few professional things that I have been struggling to resolve and find answers to".

At the end of the third session, 11 of 12 respondents agreed that the content aligned with their learning aims and expectations of the course, three of them strongly agreeing. The one point of disagreement noted that they "expected greater focus on the practical aspects of research". However, it is important to note that some participants later expressed uncertainty over what they had initially expected from the course, with one interviewee noting that they "didn't quite understand what I was going to get out of it" (P10). This uncertainty might be partly due to the selection process for the pilot. As one participant explained:

I don't really know what I expected. I kind of went in quite blind. I wasn't quite sure about the selection process either because I didn't apply for it, but I got an invite to attend (P6)

With regards to the third session, however, a number of comments highlighted the MBTI exercises as particularly valuable. One person commented that *"understanding my own personality and learning traits has been a real benefit. There are certainly aspects I knew of before but found it hard to categorise."* Another noted that this workshop had shifted their perspective on their potential to make a difference: *"I can make a bigger impact than I thought when I'm willing to move out of my comfort zone"*. Several people highlighted the MBTI as an area they would like to explore further, and many described it as one of the most valuable parts of the course. Its perceived relevance lay in the way participants were able to link the MBTI insights directly to their personal and professional development (see 3.6.3). In a later interview, one participant described how the MBTI stimulated emotional, behavioural and cognitive engagement:

I really enjoyed the MBTI. [...] For that one, I really engaged with the pre-work because I was quite excited about doing that one. So, I did do quite a lot of work before that one.. I found that a really useful session and I've looked through the MBTI paperwork since (P9)

At this stage, some comments indicated that even where participants were uncertain about the programme's overall aims, they nonetheless found the content relevant to their interests and goals:

[I] wasn't really sure about the aims of the course. I am pleased with what I am finding and it suits and appeals to me more each session which validates me making the time to attend.

Another noted:

I think it has reinforced my decision to come on the course, and I feel that the course is helping me to move forward where I was beginning to feel stagnant and unproductive

One person additionally commented that they were "enjoying" the course and remained "open minded" about its direction. Similarly, in the fourth session, one participant commented that they were *"thoroughly enjoying the outlined content as it unfolds as designed"* and another noted that the workshop had been *"great for helping me progress towards my goals"*.

To explore the perceived relevance of the course in supporting participants to think differently about their role and/or research, participants were asked about this directly following the third and fourth workshops. In response, some participants described how the sessions had encouraged them to reflect on their future trajectory, both in terms of their development as researchers and their broader career aspirations:

I am thinking more about what I might be able to offer as a researcher

More about role than research. What I want from my career

For one, it was more about a greater appreciation of how others think and work, integrating these new insights into their understanding of professional interactions (see 3.7.3.4):

It's definitely helped me better appreciate the individual differences of people. Particularly the way we think and interact with the world

Another participant also highlighted how the fourth session had supported them to work more effectively with others through helped them to foster open dialogue, recognise the value of learning from difficult emotions, and consider how this might be applied to Patient and Public Involvement and Engagement (PPIE) (see 3.7.4.3):

It's helped me better appreciate open conversations and I believe it's given me some good tools, particularly with regards to PPIE work. It's also helped me appreciate that even 'bad' emotions are extremely important and can lead to growth and discovery (despite the often-associated difficulties in speaking about them)

For others, the focus was on greater self-knowledge, in particular recognising their strengths, the value they bring, and the potential to apply these in their work (see 3.7.2):

Learning about my personality more

To be more confident in my knowledge base and how I come to my conclusions so often I believe I just wing things and get lucky, but actually I draw on many skills. I am a big reflector and like detail and to understand why but I don't like time to feel unproductive and like things to get moving too.

Being able to bring creativity as a strength to view things.

As illustrated in the latter quote, participants also described shifts in confidence and motivation:

More confidence

I've really struggled in the last few years due to changes in my role and my research activity and I had become very demotivated and resentful. I hope that taking this look at myself and about how to work with others and in groups will help me to find my 'mojo' again and believe in myself

It relaxes me into research with less fear

In the fourth session, however, some participants expressed uncertainty about the programme's relevance to their learning aims. One noted they were "unsure" how the course had helped them to think differently about their role and/or research, while another reflected, "*I don't feel like today's session has helped me to think differently.*" One simply commented that they felt the workshop "*just wasn't right for me*" and another added:

I think the session would be more relevant if it maybe looked at innovative ways of researching, about getting creative with methodology and stepping outside of what has become a very formulaic way of conducting research

This view echoed a broader theme in the interviews, where several participants expressed an expectation that the programme would place greater emphasis on research methodology. For some participants, the perceived relevance of the programme content was closely tied to whether it supported them to develop their practical research skills. One participant, for example, described how they had anticipated the course would help them "get started" on the practical side of research:

So, I'm coming from a position where I've not got a research background [...] There was a lot of areas of interest that I had in terms of evaluating the way we engage with different communities and I had a few ideas that kind of sparked my interest in trying to potentially deliver my own research. And then I realised that I don't have the skills. I don't know where to start.... [...] nobody really knows the process of it, so I was quite keen on seeing how you'd go from being involved with all these studies to then building up the skills to be able to deliver your own research or at least propose your own research [...] but [InRes] is not what I expected [...] the practical approaches to delivering your own research is what I expected the course to be more about [...] in my head I had it that the course would be very academic in terms of these are the stages. This is the PPIE. This is coming up with your research idea. This is how you'd do your grant applications and so on and so forth. And there has been aspects of that, but in a good way, I don't think the course has been just that, which is good (P5)

They acknowledged that while the programme had supported the development of practical research skills, their understanding had broadened to recognise its wider purpose in fostering personal development as an integral part of becoming a researcher, illustrating a deeper level of cognitive engagement with the content:

I think it's given me more of like a holistic overview of how I am developing as a researcher in general rather than just giving me the road map of how to create a study [...] the course itself has been quite eye-opening to personal development in a number of different areas, and it's not necessarily sort of the black and white of this is exactly how you deliver your own research, which I think has been good for me ... it's kind of been like the bonus sessions around sort of understanding my own development [...] I suppose [it's] a bit of a crossover really between the harder skills and the softer skills, but they've been quite useful. (P5)

They went onto to note that the emphasis on broader personal development aligned with their ambitions to build confidence, skills, and knowledge in "trying to figure out the route, or at least the right people to ask or the right questions to ask to get started on your journey." They reflected that although this was not an approach they would have actively chosen had they understood the programme's aims more clearly at the outset, it nevertheless had proved beneficial and had encouraged them to engage with a personal development process they might otherwise have overlooked:

So, it's been a bit of a mixed bag and it wasn't necessarily what I expected, but I think that was a good thing because knowing myself, I don't know if I would have gone out of the way to look into MBTI for example and things like that without having that sort of guidance to encourage me to do it. And being in a group where we're openly discussing it, it kind of forces you to immerse yourself in it (P5).

A similar experience was shared by another participant who, although initially uncertain about what to expect, had anticipated an emphasis on more practical research skills, but came to appreciate the relevance of the broader, holistic focus on professional and personal development to their progression as a researcher:

I wasn't sure what it was going to be like, I didn't know if it would be more like right 'read this journal, now critically analyse it' and we'll do that together and looking at like an appraisal tool for a piece of research. I didn't know if I thought it was going to be a bit more of that rather than it's been a bit more self-exploratory really [...] So that's been interesting [...] I think it's just a reminder that if you are going to take on a PhD that it's all-encompassing, isn't it? I have enjoyed it and I was thinking it's finishing soon and that's going to be a shame because it has been a good chance once a month just to sit and learn and do a bit of self-reflection and then learn a little bit obviously about the research side of things. So, I think it's been a nice kind of rounded approach rather than just sitting critically appraising this piece of research (P2)

However, for this participant, a sharper focus on developing critical appraisal skills would have aligned more closely with their individual objectives and with what they understood the programme to be aiming to achieve (see 3.6.1).

I think I would have liked a bit more of that because I don't think I'm very good at that. And I think we've done a little bit; I think maybe I could have done a bit more. So, I don't know, maybe start with something like that, then do all your learning and then come back to it and see if you developed that skill [...] maybe could have been a little bit more of that side (P2)

Another participant explained that, although they had initially anticipated a stronger focus on "hard" research skills, they came to recognise how the skills they were developing fitted together as a foundation for moving on to more advanced research training and opportunities (see 3.7.3):

It's not what I expected [...] I expected a lot more harder research base. But I've really enjoyed it despite it being not what I expected and I think it has made me look more into the softer skills side of things and I think then that's made me properly develop more than what I would've thought I would have done. When I first saw what the course was going to be, I was a little bit worried, it wasn't what I expected, but then I think it has all started to come together [...] I thought it would be more of like 'this is qualitative, quantitative, this is the methodology' I thought it was going to be a lot more heavy on that side of things [...] I don't think I would change it to that degree now because I've enjoyed this way of looking at it, I think it's a really good way to get those skills up to then look at more the harder skills stuff and look to go on to those different types of internship type things or like the PI schemes like I'm thinking about. I think it leads you on to those quite well. I wouldn't particularly change it now (P8)

A similar shift was described by another interviewee, who recalled initially questioning the absence of direct research content in the early sessions. While they were uncertain at first about the purpose of some of the creative and reflective activities, they later recognised these as designed to foster social engagement (see 3.5) and to lay the foundations for developing their research knowledge and skills:

One participant described a similar shift in perspective, moving from initial confusion about the lack of direct research content to later recognising the value of the programme's creative and reflective activities in supporting social engagement and laying the foundations for developing as a researcher:

I was asking myself how come we've not done actually done anything to do with research yet. Because there were like a lot of things like creativity, but with the last two sessions that we've had, I just understood why they started off like that so everybody was more connected to each other [...] Initially I was quite confused, we've not done any of the research, like the introductory part, like the steps and the basics that you need to know, all the things that would let us understand when we're going into research proper [...] I was a bit confused. I questioned myself when we're doing reflections, like, why is it that we are doing this, why haven't gone into the main research thing. But I think I'm beginning to understand why it was like that [...] Obviously this is an introduction to research and to be honest, it has actually introduced me to research. What's the basic knowledge I really need to know about research if I want to do anything in research. So yes, that's majorly one of the things I can take from it. (P3)

For another interviewee, however, the limited emphasis on 'hard' research skills felt misaligned with their personal ambitions. They struggled to see the relevance of the programme's focus on broader personal development to their stage of progression as a practitioner researcher, which contributed to their disengagement from the course:

It's just not what I was expecting from a research kind of course [...] I think just generally it's not what I thought it was going to be [...] I think I would have expected to learn more hard skills rather than some of the softer skills which I felt if I'd have known it was kind of focused on those, I might not have pursued it [...] Other people have agreed, but the coach kind of said 'this is to give you the skills to then go and get the other skills on your own and like you could do a master's and things' but I've already done a master's and I just was hoping for a refresher on some of that stuff [...] because obviously I've covered it at uni and somewhat in my current role, but like it's not a focus of my current role [...] it does feel like it's maybe not been for me and I have at points thought I'm not sure if this is for me and maybe should I continue, but I think it got to the point where I was like, well I'm more than halfway through now, so I should stick it out. [...] but I don't feel as invested as I normally would [...] and I don't know if that's because I've had other

personal issues, whatever it might be impacting that, but it has felt like I haven't been as engaged as I normally would be [...] I've spent the whole time thinking I feel like maybe I'm missing something. (P1)

One participant also reflected that the programme did not fully meet their expectations and was pitched below the level they had anticipated with regards to leadership development. They had anticipated gaining greater clarity about what research leadership entails, the skills required to become a leader, and how to apply their existing experience in a leadership context:

I'm quite confused about what leadership is really. I was hoping to get some leadership development out of this course, but I don't feel like I've really got any leadership development out of the course at all. I don't feel like it's been foreground at all, which makes sense, I suppose, in an introduction to research course, especially with the cohort that we've got who are mostly novice researchers, or very early career researchers who may have done like a dissertation or a bit of audit or something like that, but I don't feel like that leadership is there, but maybe my interpretation of leadership is wrong. I don't know. I just feel that it's something that from the way I've experienced knockbacks that's where I feel like I'm lacking, that I don't have those leadership skills, but I don't really know what skills I need to improve on to become more of a leader. I've done loads of learning, I've got loads of background experience, but I don't know how to apply it in any useful way [...] It just felt like so what is leadership? What do you need to be a leader? And I don't feel like this course has helped to make that any straight [...] I felt like doing this course that it would have given me that step up to be able to say I've done all these things and I've now been on this InRes and I've got some leadership background, and I feel like I'm ready to take the next step, but it didn't feel like that (P9)

Similarly, another interviewee described how the programme had not supported the level of cognitive engagement they had anticipated from a Level 7 course, with few opportunities for learning new concepts and theory or for developing their critical thinking skills (see also 3.6.4):

If I know I'm putting myself forward for something academic, I like to feel as though I'm really understanding theory a lot more [...] but it's not what I expected. I haven't really gotten loads out of it [...] I haven't felt like I've learned much. It's felt quite a slog, a little bit with the sessions [...] It's been OK. I think being told it was like a Level 7 so marked against like postgraduate it would be somewhere where I'd go into the sessions and feel like I've learnt loads. It'd be kind of new stuff. It'd be quite advanced where I'd have to really take some time after and reflect on what I've learned. And feel like I've been challenged a little bit [...] altogether there's maybe like four or five things out of the whole year where I'm like that's new to me, that's really interesting. I feel like I would have loved this if I was doing my undergrad, I think this would be brand new to me. I just felt some of the stuff was common knowledge around kind of basic things [...] I haven't been challenged. I think that's the main thing. I don't feel like I've been challenged in my thinking. I knew it wasn't going to be research-based like learning the numbers, bits and parts like that [...] I didn't really know what to expect, but I thought it might draw more on research. And it felt like it's more kind of about me as a researcher, which I like. I love the reflection. I think that's really important [...] I don't even know what I expected to learn. I think I just expected to be challenged. I expected like this is brand new or this is really complicated. And I want to read more about this and this is really interesting. I just felt like it wasn't quite there [...] but there was still some really interesting stuff that I do feel like I've learned [...] but I think where I am with my knowledge of research, some of the stuff didn't feel like it was a step up [...] I'm not sure of the direction it's taking me in whatsoever (P4)

They went on to note that the strong focus on interactive discussion had limited opportunities to engage with theory, and suggested that a more didactic approach, expanding on their existing knowledge, would have better sustained both their behavioural and cognitive engagement:

I like to feel as though I'm really understanding theory a lot more. And I know that was in the pre-reading. But I'd like to learn that because I think that's complicated. So, I think actually being able to be spoken about that would be really helpful. I think the format I would like to put it in a lecture style, more teaching, more hands-on. I don't mind the PowerPoint with words; I like to learn that way. More content to fill up the time [...] because when we're learning about epistemology and the ontology stuff there is so much to learn about that, that I'd like to learn as much as we can in those 6-7 hours [...] just to feel like that was a lot stuff, I want to go and read more, I want to go and do more on that topic. I think that's kind of what I wanted. I think the topics in themselves, I liked the sound of each topic, I just think more content of each would be something that would work for me [...] I just thought in a six hour - seven-hour session we'd be learning maybe like in a lecture format. Maybe it's my way of learning. I like to like read stuff and then just be taught (P4)

In contrast, one participant felt the course provided a stimulating level of cognitive challenge that aligned closely with their aspirations to engage more deeply with research concepts and theory:

The stuff about philosophy and research design research methods, that's all interesting to me and it got me really excited (P10)

Similarly, another interviewee explained that sessions such as the one on 'research paradigms' was stimulating, relatable, and directly applicable to their personal and professional context, strongly supporting emotional, cognitive, and behavioural engagement:

When we've been having like discussions in groups and things, I've noticed that perhaps some of the more abstract and philosophical types of sessions have perhaps been a bit less comprehensible for others, and I've really enjoyed those because they appeal to me [...] we had the research paradigms, I had no idea what it was, but as soon as I started reading I could have just carried on reading for hours, I got really engrossed in it. It made a lot of sense to me and I could imagine my work fitting within those different frameworks and recognise why some of the pieces of work that I'm expected to do don't fit with my way of working as well because I'm not in the right service so that was quite useful as an eye opener. But I think for other people, perhaps it was almost like a layer that was just too much for them to get their head round. Perhaps it wasn't relatable to them, too high brow or sort of academic. It's just a way of thinking that felt quite relatable to me; that's just the way my mind works. So those sessions for me, looking for meanings and fitting things into stuff like that was quite helpful. (P6)

However, as noted in the above quote, a number of participants found the research paradigm session daunting and difficult to connect with their current stage of development, with the level of cognitive challenge too high given the complexity and unfamiliarity of the content. One participant, who did not find the content challenging due to their prior research experience, reflected that newcomers might struggle and suggested the session could be made more accessible if facilitated by someone with a less academic orientation.

I didn't find that session particularly difficult because I've done loads of work about research paradigms [...] but I can imagine how some people who hadn't encountered that before would have found that really, really difficult, I mean, I spent weeks, months reading about that and it still didn't really want to stick in my brain, so it was quite a difficult concept and I actually think that somebody less academic might have been better facilitating that session rather than academics, although obviously we had the other tutors there as well and we've talked about it since, but it's a really difficult topic and I think that somebody less academic to put that into an easier more palatable way would have been better for people who are literally only just starting the research journey (P9)

In line with this observation, another interviewee with less research experience described how this session had initially provoked negative emotional responses of discomfort and confusion. However, with the support of the facilitators, they described how this was transformed into a more positive experience, which enabled them to sustain their behavioural and cognitive engagement with the topic. This process prompted them to reflect on gaps in their knowledge and to recognise the topic's relevance to the overall aims of the programme and their individual ambitions:

There was a session on research paradigms which I kind of hated because I knew nothing about it and it was quite confusing, but that's not to say it wasn't a really good session. It was just because it's something that's completely out of my comfort zone, and that's probably the bit that I struggled with the most. So, it was really useful in terms of saying, well, if you do want to do your own research, this is something you need to get your head around. And the people delivering that particular session were pretty open about it being a complex issue and signposting us to additional resources and offering the support if it's something that we want to kind of do a deeper dive into [...] I did feel like it was a bit of a deep dive into the deep end, but I think that was more because it was such a hard thing for me to get my head around. I do think it has a place in an introductory course, because it's a central part of your research proposal, then I think people should be at least aware of it. And I think the way that the discussions were framed were very much 'this is a difficult topic, don't worry about knowing every aspect of it' (P5)

Another participant described a similar experience:

The one that I found the most challenging was the one where we had to look into research paradigms and all the understanding around the terminology, and the models and processes of what we would do in a research study, and I found that really challenging because it was new, the terminology was new. And it really stood out for me because they made it feel more comfortable in a space where I was feeling uncomfortable because [...] when I'd done the pre reading I was dreading the session thinking 'Oh my God, I don't know, the words are too big. I don't really understand the concepts [...] but I came away from that session feeling a bit better, feeling that I actually do understand a little bit more, although I've got a hell of a lot more to learn. I felt that that session stood out even though it challenged me more than the other sessions have done. That session was really good in terms of learning some of the new terminology without scaring me (P7)

One approach that helped to make the content feel more relevant to participants' individual aims, regardless of prior research experience, was the inclusion of guest speakers and facilitators who brought real-world examples into the sessions. These contributions grounded abstract concepts in practice and offered insights that participants could connect to their own professional contexts and aspirations, supporting cognitive engagement while also fostering emotional engagement through relevant and relatable experiences.

I remember there was one that worked well for me. It was Jane who was telling us – and this kind of really stuck and she was telling us about a time where she was working with qualitative data and what went well and what didn't go well. The difficulties of being able to get that work published and get that work recognised and it just felt like she was talking and then giving us some learning from it and then it just felt a bit more real. And I was like, I could put myself in there and I took stuff from that and I was like, OK, I want to go into research, maybe I need to understand these difficulties and speak to my mentor about it and that clicked and I think it was because there was actually some learning, like half an hour, 20 minutes to talk about something and like relate to it personally (P4)

Another participant made a similar reflection in the post-workshop feedback:

I loved Gill's personal anecdotes. It really helps me to learn new concepts. This led to deeper reflections on when my personality style has been evident in both my personal life and professional.

Other participants highlighted the value of guest speakers in making research and researcher development feel more relatable and accessible, particularly when they offered practical insights directly relevant to participants' stage of development:

Matt Kenyon is a researcher that came and delivered a bit of a talk, so he's fairly new to research in some respects, but he's doing his own research and he can come at it from a perspective of meeting us at our level. More because he's still failing you to research and he makes it quite accessible in terms of, like openly saying, I'm still figuring it out, but this is what's working for me. And this is what isn't working for me kind of thing. So that's been really helpful as well. (P5)

This presentation resonated with another participant, who valued the insight into the persistence required to succeed in securing funding to further their academic research development:

There was a presentation by a chap called Matt Kenyan, who's now achieved access to the pre-bridging program after I think, he said, something like five or six years of trying or working towards it. Because you only get to apply twice [...] so they're the ones that stand out to me (P10)

On balance, then, most participants felt the programme was pitched at an appropriate level for an introductory research course, particularly for those who were relatively new to research.

I think it does what it says on the tin. It is an introduction and I don't think it's gone too deep. I mean, there've been times when I thought, heck, I'll just have a look at that a bit more, but I've never felt that it's too much. And I've always felt that it's still challenging [...] and I don't think I've gone over old ground [...] It's all been new (P7)

Furthermore, participants at different stages of their research careers acknowledged the value of the programme's emphasis on personal development, even when they felt the academic level of the content did not fully meet their needs:

When I was reflecting on this with my mentor and being like, if I could go back in time, would I do the course again? I then sort of think about the positives that I got and I was like to be fair, I wouldn't have pushed myself in those areas and grown [...] and I think this course has subconsciously done that. I don't think from the outset that I knew that it was doing that. But I think subconsciously it's helped with that (P4)

Others similarly articulated the value and relevance of the programme's focus on personal development in terms of supporting their broader professional growth. For example, one participant described how the programme's focus on self-reflection had prompted them to re-evaluate their professional value and identity within their current role:

I really liked the focus on self-discovery. You as an individual practitioner rather than these are the service demands and you've got to be able to deliver this [...]. It has been really nice to be valued for the skills that I already have as an individual rather than a clinician [...] A lot of the skills that I've been able to spot in me through doing this course are not being utilised in my current role and I probably wouldn't have noticed that had I have not gone into this sort of self-reflection that this is what I am actually good at (P6)

Another participant highlighted how the programme had led to unexpected personal insights in contrast to what they had initially expected:

I've learned to be kinder to myself as well throughout the process which isn't something that was expected on the tin. When you sign up for a research course [...] So I think I've gained lots of insight both personally and reflectively from the sessions [...] I've really enjoyed it (P7)

This interviewee went on to explain that the focus on personal development, building self-awareness, and exploring personality traits also had direct relevance to their professional role in fostering research engagement within their organisation. They explained that this was *"the reason I wanted to come on the course,"* despite initially expecting it would primarily help them by *"learning more about research"*

For some participants, the session on 'vulnerability' offered a moment of clarity, helping them to see how personal and professional development were intertwined, connecting what they had learnt both to their current practice and to their longer-term development as a researcher:

I think probably the biggest eye opener for me was talking around the power of vulnerability in research which was quite early on. So I don't know whether that stands out because it was one of the earlier sessions and it kind of opened my eyes to the potential of the course, but I found that really important being someone that has major imposter syndrome and stuff like that anyway. I think that was a really, really good session. It was something that provided like an immediate carry over to my day-to-day. It was something that I think it's really important to learn for my research journey going forward, but it had that sort of other benefit as well. That more holistic overview of my own development rather than it just being from a research perspective so I found that really interesting (P5)

[What worked for me] was the learning on the first or second session about Brené Brown and the vulnerability. I think that really hit something that I don't know what it was, but I was like, wow, that's really powerful. And I can see how that can be applied into me as a researcher, but me also as a professional and on a personal level, and I've kind of used that [in delivering presentations] (P4)

One participant also noted plans to explore the work of Brené Brown further, while another connected the concept of vulnerability to their own experiences, recognising its potential in supporting their personal and professional growth and the resilience required to handle criticism. For the latter, however, the relevance of this learning only became apparent over time:

Brené Brown I struggled with until I hit my own personal crisis. Then I started to understand it a bit better. And that partly comes from [...] putting yourself out there. So this is what I want to do [...] Brené Brown was about putting yourself out there, but then there's a negative side to it. You get flak from different people who don't agree with the idea so that all impacts on you, so I'm starting to understand that [...] it does influence the way you're going about yourself, and in terms of like the Brené Brown thing about vulnerability, you have to be just prepared to take your knocks, learn from it and move on, which is probably what I've done (P10)

They went on to explain that the programme's experimental approach and its emphasis on creativity had aligned closely with their own sensibilities and motivations for getting into research (see also 3.3.2.2):

[I found the creative element] valuable, that kind of more sort of experimental flavour they bring to it [...] the word experiment and creativity sort of sums me up, really, that's why I'm on this journey, [...] it's all about creating new things and moving things in different directions (P10)

Similarly, another participant saw the integration of creativity into the course as a positive and worthwhile approach: *I like the element of creativity and research going hand in hand. It's a good perspective to take (P4)*

At the end of the programme, all participants were asked again how relevant the programme content had been to their learning and development (see Fig. 25)

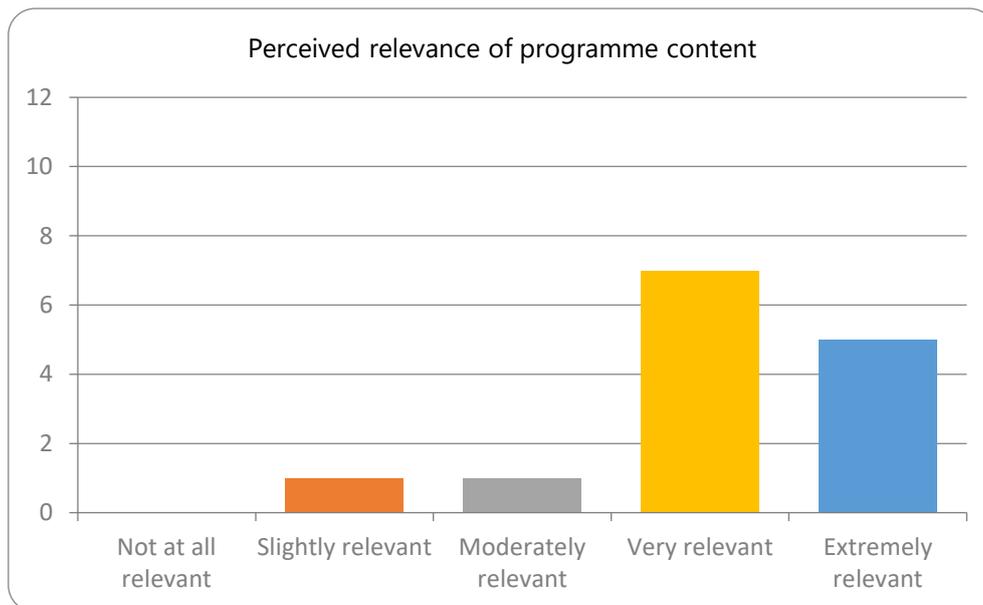


Figure 25

Responses show that the majority of participants concluded that the programme was either *very relevant* or *extremely relevant* to their learning and development. One person gave the more tempered response of “moderately relevant” and another rated it *slightly relevant*. This distribution suggests that the programme was largely successful in aligning its content and delivery with participants’ learning and development goals.

From a facilitator perspective, several emphasised that greater clarity in articulating the programme’s aims would help participants to perceive its relevance more readily. Some described a need to better articulate the interrelationship between personal and professional growth, explicating the connection between the ‘head’ (academic learning) and the ‘heart’ (understanding of self). While the Vitae Researcher Development Framework (RDF) was regarded as a useful starting point for expressing this relationship, some felt that more needed to be done to integrate these dual aims into a more coherent vision.

In addition, some facilitators pointed to the need for clearer articulation of what is meant by an “introduction to research” and how this aligns with participants’ existing experience and goals. Relatedly, some uncertainty within the delivery team about the intended ‘level’ of the programme complicated decisions around how to pitch key concepts such as criticality, the language to use, and the degree of challenge to employ in the facilitation.

In addition, some stressed the importance of establishing a shared understanding of the different interpretations of terms such as research and research engagement, noting that doing so at the outset would help participants situate the programme more effectively in relation to their own roles, experiences, and aspirations as emerging practitioner researchers.

3.6.3 Reflection

Within cognitive engagement, reflection is understood to be a key mechanism through which participants make sense of the programme content and its relevance to their own experiences and ambitions. In particular, InRes was designed to foster self-reflection as a way to build self-awareness, develop new ways of thinking and recognise areas for growth or change.

To assess how effectively reflection was supported, the evaluation first examined whether the course design offered sufficient opportunities for reflection and whether participants recognised the purpose and value of reflective activities.

In the first session, all but one participant agreed that they understood the purpose of the reflective activities, with seven strongly agreeing. One participant gave a neutral response, commenting that they were “*not sure what the objectives were from a learning point of view and the connection with research*”. However, all participants agreed that they understood the value of reflection in supporting their learning, with four out of twelve strongly agreeing. All but one participant felt that the time allocated to reflection in the first workshop was “just right,” while the remaining participant felt that “too much” time had been given to these activities. 4 people also highlighted the reflective practice sessions as being the most valuable part of the first session, with one person describing how these sessions had emphasised the “*importance of reflective practice in research*” and another explaining how the models had helped them to structure their reflections:

I found it useful to learn about reflective models and will use this to rein myself in as I tend to waffle a bit when doing my own reflective journal”

A facilitator observed that allowing time for reflection and providing dedicated “writing and thinking space” worked well in the first session in supporting cognitive engagement. One facilitator, however, highlighted the need for more time at the end of the first session to consolidate and capture learning.

In the second session, all participants agreed that there was sufficient reflection time to support their learning, with 3/12 strongly agreeing. One person also valued the use of more creative methods to support reflection and cognitive engagement in this process (see 3.3.2.2):

I like using the picture at the start to depict where we see ourselves. I find those types of vital analogy aides helpful.

In the second session, participants also took part in the reflective walking activity, *Street Wisdom*, during their lunch break (see 3.2.2). Several valued the opportunity for reflection through this activity, one noting that “*it was really appreciated to have enough time to do this without feeling rushed.*” Others emphasised how the activity deepened their cognitive engagement by inspiring creative thinking, encouraging the exploration of new perspectives, and helping them to overcome mental blocks: (see 3.7.1):

I always find this [being outside] as a way to open up to creative thinking and move past thought blocking situations

I think the method was brilliant in getting some interesting thoughts together; chance to reflect. Gained more from it than I thought I would. It surprised me, I wasn't sure what to do at first but I found it really useful as my thoughts started flowing and I had a good reflection

Allowed me to view things from a different lens

This was interesting. I've used these analogies before for myself

It helped me see how many different messages there are in the environment and how this can help the mind get through a muzzy mind moment

Two participants highlighted *Street Wisdom* as the most valuable part of the second session and facilitators felt that this activity had worked well in supporting deeper reflection, noting that participants gave insightful feedback upon returning from their walk. Facilitators also highlighted the value of closing the second session with extended time for participants to reflect on their learning and consider its application in practice, an

approach that was seen to deepen cognitive engagement while fostering behavioural engagement through supporting greater ownership of learning.

However, not all responses to Street Wisdom from participants were entirely positive, for example, one person noted that they were "*unsure of the relevance of finding analogies to explain the learning journey using nature*" and another reflected that it opened up too much space for "*overthinking*."

Moving onto the third session, all but one agreed that there was sufficient reflection time, 5 of whom strongly agreed and the remaining respondent providing a neutral response. Comments from the third and fourth session also described these workshops as being "*very reflective*". One person highlighted the chance to "*reflect with others*" as a particularly valuable aspect of the fourth workshop given that there is "*not much time in work to value free space to reflect*".

Later in the interviews, the MBTI session emerged as one of the most frequently cited examples of reflection in practice, encouraging them to reconsider self-perceptions, build greater self-awareness (see 3.7.2), reframe past experiences, and identify areas for growth. In doing so, the exercise often intertwined cognitive, emotional and behavioural dimensions of engagement.

For example, one interviewee described how the MBTI exercise fostered deep self-reflection, helping them recognise how the demands of their role had been shaping their self-perception. This process boosted their confidence, supported a stronger sense of themselves as a leader, and ultimately motivated them to pursue new career opportunities:

The biggest eye opener one was probably the MBTI because I was completely the opposite to what I thought, but then the more I kind of thought about how I probably answered the questions really quickly. You're not supposed to mull over them, were probably more reflective of how I would think on the spot. Whereas I overthink everything and I've been under a lot of stress and under a lot of pressure in a service that doesn't fit with my values. So that's probably why I naturally thought I was the opposite. And then the more we kind of unpicked in the session that you tend to find you come out as your stress version of yourself [...] And actually to see that I was the opposite which is what I keep striving to think that that's where I want to be, that was really fulfilling to know that I am meant to be that. That's why I'm striving for that, because it clearly is within me to be able to be a leader and to have these innovative ideas, just not in the environment that I'm in at the minute - it's just not conducive to allow that... So that was really helpful and that gave me a push to apply for another job to step out of that arena [...] take the courage that you are more than what you're doing at the minute (P6)

A similar pattern was evident in another participant's account:

I really enjoyed the MBTI [...] my reflection from there was that it helped me to consolidate how I see myself. I think I've had quite a bad few years with work [...] I felt really lost in work. I was also diagnosed autistic [...] it gets to the point where you're reframing a lot of things. So, I think doing the MBTI it helped me to put a few things in perspective. Because I kind of felt I didn't really know myself very well and it helped me to kind of separate out that introvert extrovert because like in the classes, I'm usually the one that speaks first. So, to me, it's like really weird because I feel I am an introvert, but we talked about the fact that you could be an extrovert professionally, but socially introverted. And it kind of helped me to look at those different aspects and just by doing this, it doesn't put you in a box. And I found it really hard to answer any of the questions, just with a straightforward yes or no because it's like, 'well in this situation (P9)

Other participants also emphasised the value of the MBTI session for developing self-awareness and gaining new insights into themselves and what energises them in a professional context (see 3.7.2):

It was really interesting, like the MBTI session was really interesting in terms of, like, understanding where people get their energy from and things like that was quite interesting... But sort of digging down into what energises me like if I do deliver like in my previous role like delivering a school assembly to like hundreds of kids like I'm buzzing for the rest of the day... Though I find that really scary. So that would allow me to think and have a bit of an introvert that actually energizes me so and then look at the MBTI and things like that and say, actually, no, I've actually come across as an extrovert (P5)

One explained that the MBTI exercise had helped them deepen their self-understanding and appreciate how different personality traits can complement one another in team settings:

I liked the MBTI personality thing, which was really interesting [...] I love that kind of stuff. Learning about me, thinking about me, learning about how being an introvert can actually be a really good thing if you use it to your advantage when working with extroverts. It's how to kind of make that work and also just an understanding of other people within the team that you work with and how to use their strengths and your strengths together (P4)

More broadly, facilitators also foregrounded the value of reflection in these early sessions, with one describing their role as a "convenor of reflective conversations". Some facilitators highlighted the importance of slowing the pace, limiting content, and dedicating time for dialogue and exploration in the online workshops so that participants could better connect learning to practice.

In line with this, some interviewees highlighted the value of the course's structured reflective opportunities in helping them to engage more consistently in reflective practice and in supporting deeper cognitive processing of their learning and experiences:

I think in terms of usefulness for me, I think probably the one about reflective models because I'm not bad at reflection, but I've never been able to use a model. I don't like that restriction, I suppose of 'do it this way', but I did find it useful and I've written loads of notes on that particular day while I was doing it. Gibbs reflective cycle, which I've never used before [...] I think [the course] it's definitely helped me with the reflective side of things and I think I've always been quite reflective, but I think actually having that time within each of the sessions, use this 10 minutes now to do some reflection because I always have good intentions of doing some reflections or journaling and stuff and when I do it, it really helps but. It's hard forcing yourself to, so I think just having those 10-minute periods within the course time while we're all sat there to invite those reflections has given me the opportunity to think about things and process things. (P9)

I've got more of an understanding of different reflection models, which is useful. And it's encouraged me to be more reflective, which I'm happy with (P4)

One interviewee suggested that building in more structured opportunities for reflection between workshops could also help strengthen cognitive engagement by aiding consolidation and retention of learning:

Certainly, people can forget what the session was like only four weeks ago, not everybody is the same, but if people are supposed to do a little reflection and sort of consolidate your learning that hopefully stores it in your memory so that it wasn't in one ear and out the other (P6)

Another participant also noted that taking part in the evaluation provided an additional opportunity to reflect on their learning, through which they realised they had gained more from the course than they had initially thought:

Your questions prompted me to, like, reflect - there's so much actually that I've benefited from in this course that I didn't realise that I did. (P3)

3.6.4 Critical thinking

The programme also aimed to cultivate a more critical dimension to cognitive engagement. This criticality encompassed both critical self-reflection, where participants examined their own assumptions, barriers, and experiences, and critical thinking, through which they analysed others' ideas, questioned perspectives, and reasoned through arguments. This section examines how far the programme design enabled these different forms of critical engagement, with the development of critical thinking skills as a learning outcome explored in 3.7.1.

In the early sessions, no specific feedback on the degree to which the workshops supported critical thinking was gathered, although one participant commented that "*more debate, critical thinking*" was needed and another added:

I did not feel there was much critical debate about the benefits of reflection. Especially reference to the pre reading

Some facilitators also highlighted the need for more opportunities for critical reflection and discussion in the early sessions. One added that negatively framed comments from participants were not used as an opening for deeper critical dialogue.

However, in the third session, all but one respondent (7/12) agreed there was sufficient critical discussion, with 4 strongly agreeing and 1 giving a neutral rating. One facilitator, however, rated the level of critical discussion and reflection just "fair". In the fourth session, one facilitator rated the degree of critical discussion as "good", but the other only rated it as "fair". The latter noted that providing more support to strengthen participants' cognitive engagement with the pre-learning, and its connection to the workshop, could help to enhance both critical and collaborative engagement (see also 3.3.1.3):

More time [is] needed to support critical engagement with the session content and ensure that the participants understood the material to support contribution to group discussions [...] explore different ways of supporting participants' understanding of the material and connection to the pre-learning

In the fourth session, however, 6 of the 7 respondents agreed there was sufficient critical discussion, including 2 who strongly agreed, and one who gave a neutral response. On this topic, participants were also invited to comment on the extent to which they felt able to critically engage with the concepts explored in the session. One participant reported being able to engage with these concepts "to a great extent," and another highlighted "*plenty of opportunities to discuss in breakout groups*" (see 3.4.1). By contrast, one participant felt they had only been able to engage critically with the concepts "to some extent", while another commented "*I don't feel this was fully explored.*"

Participants were also asked to reflect on how the curiosity-driven inquiry methods used in this session supported their learning (see also 3.3.2.2). This method was designed to support critical thinking by encouraging participants to ask questions and explore multiple perspectives. 7 people responded, with two comments pointing to a positive impact on developing their critical thinking skills:

I really enjoyed the discussions of the pictures and the exercises involved. It helped me to understand the skills required to look beneath surface information and content to find the underlying themes

One interviewee also reflected that the "session on developing a curious mindset" was where the emphasis on critical thinking had come through most strongly. For one participant, the focus on vulnerability in this session prompted critical reflection on their professional mindset and inspired interest in qualitative research approaches that embrace uncertainty and support more critical inquiry:

The power of vulnerability was a really interesting topic of discussion for me. I'd love to do qualitative research in the future and I think this realisation will be really important for me. Not always having the answers (particularly working in healthcare) can be a hard notion to come to terms with but the importance of recognising this was very clear in the session

Others valued the curiosity-driven methods for their applicability to research and professional practice, variously highlighting links to research practices, conflict resolution, and alternative ways of generating data:

Useful to link how this applies to research

Built nicely upon previous learning with another avenue to consider as a tool for aiding discussions, especially around conflict resolution

That there are other ways to obtain data that are less invasive than asking questions. Helps to elicit different themes and responses. Allows for more varied data.

However, one participant expressed uncertainty about how this methodology supported critical thinking or reflection, although they acknowledged that its value became clearer as the session progressed:

I wasn't keen at first on the photo thing, and felt like if I hadn't seen that one picture, I'd have found it very difficult to choose from 52 options. I don't feel like it was clear where the teaching was leading us, although I do feel that when we became a group of 4 and looked at all our choices, it became clearer and I began to see the potential value

Others expressed uncertainty about the overall aims of this session, noting a lack of flow and connection between activities. As one explained, "If I'm honest, I don't feel like I learned a lot today... I don't think each of the sections of the day flowed well." Another echoed this, describing feeling "a bit lost" and that the day felt "a little disjointed." Such uncertainty appeared to limit their ability to recognise and engage with the methodology as a means of enabling critical reflection and thinking.

Reflecting on the programme as a whole, however, one interviewee explained that the course activities, particularly the group discussions, had encouraged critical thinking by developing their curiosity and analytical skills, fostering the ability to challenge assumptions and consider problems from multiple perspectives with clear links to their role in healthcare research:

Reflecting on the programme as a whole, however, one interviewee noted that the course activities, particularly the group discussions, had encouraged critical thinking by stimulating curiosity and fostering their ability to analyse, challenge assumptions and view problems from multiple perspectives, with clear relevance to their role in healthcare research:

I think the way the activities are put together lend themselves quite heavily to critical thinking and the way we've got to pick things apart as well, which has helped [...] I think critical thinking for me is more about sort of picking apart problems and trying to understand deeper meanings behind different issues and the way that different issues sort of interact and affect each other. And I think for the course itself, that's probably more evident for me because there was more direct links to my own role in healthcare research and what I'd seen so it was kind of like, OK, they're really keen for people to look at either existing issues or previous issues or previous solutions and really pick them apart and focus on it from that critical thinking aspect of it [...] rather than the broader aspects of critical thinking, although that obviously was a big part of a lot of areas of the course. I think the critical thinking elements were really put forward in the focus groups in terms of picking apart problems, trying to understand issues from different perspectives. So, I suppose critical thinking to me is being able to pick apart issues, argue different points, understand issues

from different perspectives and not be sat stuck in one particular mindset and try to look at things objectively as well, sort of switching perspectives, which I think we've managed to do (P5)

For another participant, the focus of the programme was on critical self-reflection, examining and challenging their own assumptions and mindset, rather than on critical thinking in the narrower sense of evaluating external ideas or published research:

I think that the critical side of it, I think, is what they've enforced in those softer skills more than what I probably realised until I then started doing my essays and my presentation and stopped and reflected on my own practice essentially. I would say that that's just a common theme that's embedded into it that hasn't really been like a key focus, I think it was a part of it, but it's because they're getting us to reflect and critically analyse throughout the course that it's been just a constant really [...] I think there has been times, like last week we went through one of Jane's research papers and were asked to critically analyse that. So, there has been the opportunities to critically analyse research. But I think more it's been towards my mindset, my professional opinion rather than actual research (P8)

They went onto remark, however, that the course had encouraged them to apply these critical thinking skills more broadly:

It's probably developed my mind a bit more critically [...] Why do we do that? Or is there a way that we could change that when I didn't do that as much prior to this course (P8)

A third interviewee also felt that the course's focus on criticality was framed primarily around self-reflection, which they distinguished from their own understanding of critical thinking as a more outward-facing process of evaluating arguments and considering alternative perspectives through reasoned analysis:

I suppose [critical thinking] fits in with the reflection model and they are definitely pushing that. That's been part of every session so far. And I think that the coaching sessions are trying to guide us towards that [...] but [Critical thinking] is like different argument styles - deontological arguments and things like that, why is that your opinion, but instead of being argumentative, it is thoughtful. So, to me, that's what critical thinking is (P9)

They also considered whether this more "argumentative" form of critical thinking could be construed negatively, creating barriers to open discussion:

But I just feel that in this day and age that people are so polarized in their opinions, it's really hard to have an honest discussion when you don't necessarily agree with somebody because people get offended [...] everyone's a keyboard warrior and so critical thinking. I feel that over the last 30 odd years, has become a bit of a banned word almost (P9)

One participant described how the programme had supported a progression from critical self-reflection to critical thinking. They explained how early activities focusing on building self-awareness laid the foundation for more advanced critical engagement with different research paradigms and methods, with this understanding consolidated through their reflections in the assignment:

We always had time to reflect in the sessions, I guess whether that then takes it to a critical thinking level, because I think that's the next stage of taking it up and up. So, I think that that's definitely come through on the past few sessions, which feels like a bit of a natural progression, doesn't it? I guess at the start we did our evaluation and we were thinking about our personality and ourselves and a bit of reflection within that. And then of course, as we've learnt a little bit more about research, the paradigms and methods, then

we start to think a bit more critically, so I think there's been enough opportunity and I guess that's consolidated in the assignment [...] It's like just understanding how you could be placed in research (P2)

One interviewee also reflected on how the programme had supported critical self-reflection alongside more applied critical thinking in terms of developing a deeper understanding of the notion of academic criticality, research design choices, and the value of qualitative approaches alongside quantitative data:

Criticality is part of reflective evaluation of [...] criticality depends on if it's academic criticality then I've probably done enough in the past to be critical. And my personality is that I'm critical and negative of all ideas, so I'll shoot them down first in my mind. I've learned that's probably my deficit and I can be quite critical of some authors in the deficits of research and things like that. So, there's two aspects of criticality because there's like academic criticality where you're saying so and so says this. So and so says that, what's the in between? Is there an in-between? Is there no in-between? What's the way forward? And then there's my own personal criticality, which I'm more aware of now, probably as well from the course. I mean, if you look at a proper critical analysis. It gets quite intensive and you need a good knowledge base to be able to do it properly. So, I probably understand more now when they were saying research design, so it's quantitative research, but could they have achieved more through a qualitative approach? What would they have got from it? And that's been my argument throughout the entire course. There has to be an argument for quality research all the time, because you're asking people what they actually think and if that doesn't match the numbers you've got in the quantitative side, then you've got a problem with what you're doing [...] So I understand that better now, so I understand that whereas I was always looking for numbers to back up ideas. And they're not always there, number one. And they don't always support what you do (P10)

Another interviewee echoed this, explaining that the course had broadened their perspective on what counts as research and shifted their interest towards qualitative approaches, which they felt aligned more closely with their personal strengths and experience. Exposure to creative methodologies such as video and image-based storytelling further encouraged them to question assumptions, reframe prior experience, and recognise that aspects of their own practice already constituted research (see also 3.7.2):

Being able to go out of your comfort zone and the fact that you are able to think out of the ordinary, for example, one of the things I picked up from the course, I've always thought research should be quantitative [...] when we discussed it, I became interested in qualitative research because I'm very good with writing and talking and presenting and so I was just like qualitative will be a nice thing because I'll be able to tell a story with what I've done. I'll be able to speak to the audience about what I've actually done [...] because with the numbers most times when I see research with numbers, I go first to the abstract and then the conclusion, I don't really go into the details [...] but with qualitative I think it is interesting reading what the stories are and the description of it, [...] So when we did the course, I understood what I do is qualitative research [...] And then the storytelling that they do with it and watching videos, using videos to tell a story, images to tell a story and to tell your research. So, for someone like me who needs a push sometimes in doing things, it made me think out-of-the-box... [...] So, I think that this course has opened my eyes - you don't know that is actually research that you've done [...] this is actually research because I'm feeding back what I've done and what I'm evaluating and I was telling people about it. So yeah, those things that you don't think are research are actually research (P3).

One participant reflected that the course had enabled them to recognise their reflective and curious mindset as a form of critical thinking. They explained that while this way of thinking had always felt instinctive, the programme helped them to see it as a distinct skill and to recognise its value in their professional practice:

But [critical thinking] has certainly come out. There's definitely a thread throughout probably every session, something that I probably connect with quite naturally [...] it wasn't a new concept. It's something that I do in my practice anyway, but it added another layer of how to do it which was helpful to give me thoughts that I'm doing it in other ways that I might previously have missed just thinking that that's just how I was thinking, but actually, no, it's me being curious, that's my sort of reflective, curious mind in operation – and I wouldn't have thought of that before, I'd have just thought that's how I think, but it's given some recognition into actually I can use that as part of the work that I'm doing. And I think perhaps the different language, the different words that have been used to describe it, that's been helpful [...] I've always kind of looked to sort of explore perhaps why or justify or validate why something is what it is. I didn't know that that's being critical. I thought that was just how I think. It's to kind of have that confirmation really that that's a skill that's already embedded within me, but I didn't know it (P6)

For another interviewee, the course helped them to overcome long-standing anxieties about critical thinking and academic writing. They emphasised the value of peer interactions and open discussions in building their confidence in these areas, which had made pursuing a master's degree feel more realistic and achievable (see 3.7.2 and 3.7.3):

I think it's been really good to have [the critical thinking element] This is where having lots of interaction and having lots of other colleagues on that maybe have had more understanding of critical thinking and how it's done and showing evidence of how to do it. I think one of the things for me, I've always been petrified – that actual critical analysis, the expectation that you have for higher level of education. I've always found really daunting going that extra step and doing that extra critical thinking and actually how you put it into an assignment, how you put it into any work that you do [...] and probably I would avoid it where possible, but having done the course, I don't feel the same way - I feel not necessarily that I'm an expert, but actually it's not something to be worried about as much as I was doing. So, I don't feel as nervous about wanting to do a master's, for example, and actually step up and do that critical work [...] I've always found academic writing really challenging. So, I've almost put my own stumbling blocks in by putting that fear factor in [...] I'll not even try because I'm worried about being able to do it. So, I think because of the way that the sessions have been led and the interactions and how other colleagues have actually been open and talked about how they're feeling and their work, I feel that it's not as challenging as it was because I've had that insight into others and how it could be done on the course as well (P7)

This participant highlighted a session on critical writing, in particular, that offered a "really good explanation of how you could write critically". They also described developing skills in recognising bias and the value of broadening perspectives, relating this to issues of equality and accessibility in research and healthcare more broadly, which they are now beginning to apply in practice:

We looked at research models and the methods and research bias etcetera - not just blinkered in one perspective, so to have that critical thinking it allows you to utilise that in other ways in your other roles as well. So, it's really useful to see that sometimes we can just be working in silos, silo rather than actually thinking about all the other aspects. You don't think about the research bias element coming in or that you're looking at it in an equality way. So I think having done that and one the colleagues that was on the course talked about how we can make research available for everyone to be able to do and take part in it and I suppose that opened my eyes that we don't make it as accessible as we could do for everybody in terms of if you're blind or deaf [...] I think that's something that I've learnt on the course that has been really beneficial in that now I can think about it more critically. When I look at something, and look at say a piece of research that we might want to do, or a project is that am I thinking about it just in one way or are

there lots of other ways of think about it? Implementing all the ways in which it should be thought of and so that's sort of fed through from the course utilising it in my own role as well. (P7)

Another participant, however, felt they already possessed critical thinking skills in terms of evaluating research prior to the course, with the programme doing little to develop their capabilities in this area:

Criticality has been encouraged throughout particular with the breakout room conversations we are asked to focus on things like that or we're asked to read something and think critically about it or I think on the break last time we were asked to read an article and think about ethics and things like that. I feel like I might have had those skills already, but maybe I've just sharpened them a little bit (P1)

One participant also argued that although the programme created opportunities for critical reflection, the facilitation did not go far enough to challenge participants or generate richer discussion:

Being able to think critically about certain things, I think the way the sessions were run didn't challenge me. So, I think it did allow for rooms to think critically about things, for example, when we're looking at epistemology or like constructivism, interpretivism and also like your MBTI scores and just being able to think critically about kind of what works, what doesn't work, why that might not work? I definitely think those thoughts were there, but I think the way it was guided felt quite basic. And it didn't feel as though maybe there was as much rich, critical conversation, which I think I'd benefit from (P4)

Similarly, in the post-programme feedback, one participant commented that they would have liked “more analytical focus” in the course.

From the facilitators’ perspective, there was ongoing concern as to whether the course was providing participants with sufficient opportunities to develop their critical thinking capabilities. Contributing to this concern was the issue that criticality itself was understood and enacted in multiple ways throughout the programme, reflecting the diverse academic and professional backgrounds within the design and delivery team. For example, some facilitators drew explicitly on critical pedagogy, emphasising dialogue, questioning of assumptions, and the co-construction of knowledge as a means of fostering critical consciousness. Others foregrounded critical thinking from an academic or practitioner research perspective, for example in relation to evaluating evidence in practice, assessing the robustness of research findings, and applying these judgements to real-world health and care contexts. A further strand centred on critical self-reflection from a learning, development, and psychological point of view, encouraging participants to examine their own experiences, values, and professional identities, and to consider how these might shape their approach to research and leadership. A central emphasis was on helping participants integrate theory and practice, applying ideas to real-world contexts and recognising how practice can, in turn, challenge or reshape theory. This was viewed by some as a productive route to developing critical thinking skills such as questioning assumptions, evaluating evidence, and considering multiple perspectives. Together, these different perspectives complemented each other, by illuminating the interrelationship between critical self-reflection and critical thinking, although this connection does not always appear to have been made explicit to participants.

To address this, some facilitators suggested drawing more explicitly on different learning approaches such as critical pedagogy, praxis, critical reflection and action learning. They described how each approach offered a structured means of connecting theory with professional experiences, questioning assumptions and deepening understanding, whether through dialogue and co-construction of knowledge (critical pedagogy), iterative cycles of reflection and action (praxis), systematic examination of personal values and experiences (critical reflection) or collective inquiry into real-world problems (action learning).

Other strategies for supporting more critical reflection during the online sessions including providing clear 'anchor points' during discussions, drawing out key insights and building on participants' contributions by using questioning to deepen analysis and encourage inquiry. Mini-assignments designed to test participants' critical thinking abilities were also proposed as a way to create opportunities for more individualised feedback and support in this key area.

Finally, facilitators with learning and development backgrounds emphasised the need to create a safe and supportive environment for participants to build critical thinking skills, noting that these skills are not typically supported within day-to-day professional practice (see also 3.2.1). Given that criticality is both an unfamiliar and complex concept, they stressed the need for clear explanations and gradual introductions to this aspect of the course. In addition, as criticality requires both facilitators and peers to '*engage through challenge*,' they also highlighted that constructive questioning must be supported within a trusting and inclusive atmosphere that helps participants manage any discomfort this may generate.

3.7 Programme Outcomes

Programme outcomes were assessed primarily through a post-programme survey, complemented by interviews that provided richer insight into how participants perceived the programme’s value for their personal and professional growth as early career researchers.

Both the survey questions and analysis are structured around the Vitae RDF, offering a lens through which to explore the degree to which the programme enabled participants to develop some of the knowledge, skills, behaviours, and attributes of successful researchers, and to begin realising their potential as research leaders. The design and delivery team identified confidence as a key mechanism through which the programme was expected to enable change. Confidence was therefore adopted as a central outcome measure, with increases interpreted as evidence of new knowledge or skills and a greater readiness to put these into practice. Neutral ratings were interpreted as indicating that participants already felt confident in this area and/or did not experience a significant increase in confidence during the programme.

3.7.1 Developing a research mindset (Knowledge and Intellectual Abilities)

The first set of programme outcomes align to Domain A of the Vitae RDF (Knowledge and Intellectual Abilities), and which was introduced to participants as ‘developing a research mindset’ in the post-programme evaluation. These measures capture participants’ growth in the intellectual skills and dispositions needed to think and act as researchers.

3.7.1.1 Inquiring mind (A3)

In the post-programme evaluation, participants were asked to what extent, if at all, their curiosity and openness to new ideas, perspectives, or questions had changed since starting the programme (see Fig. 26).

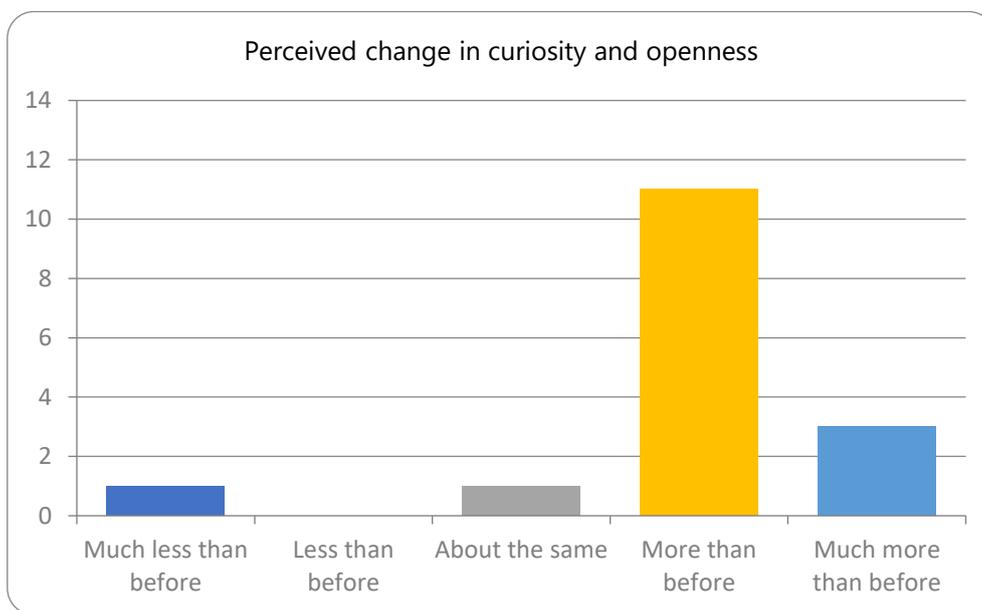


Figure 26

Most (11 of 16) reported feeling “more than before,” with a further three indicating “much more than before.” One participant reported “about the same,” while another noted “much less than before”, the only negative score across all outcome measures. It is important to note that although no further comments were made to provide insight into this negative rating, the same participant gave mainly neutral responses on other measures and did not complete the full questionnaire.

A burgeoning curiosity and openness to new ideas, perspectives, or questions was variously linked to the course focus on reflection, criticality (see 3.6.3 and 3.6.4) and creative methods (see 3.3.2.2).

Similarly, comments in the post-programme evaluation variously noting that the course had helped them to “think more creatively” and “to develop more creative approaches to learning” another adding that “I have become more creative”. Others described how the course had opened them up to taking on new experiences and creating new opportunities:

This programme has made me more keen on learning new experiences and taking risks.”

“It has led to me to creating opportunities to support the development of research in my area of work.”

Another participant reflected more broadly on how the course had changed their approach to problem-solving:

I have loved this programme. It has made me more curious and changed my approach to problems in my service and the Health Trust I work in

One participant noted that the programme’s focus in creating a “safe space for me to be vulnerable and offered support and validation” was a key factor in supporting them to develop a more inquiring mind (see also 3.2.1).

Participants were also asked to what extent their confidence in asking thoughtful and challenging questions about issues in their area of practice had changed since starting the course. The majority (11/16) reported feeling “more confident,” with a further three indicating they felt “much more confident” (see Fig. 27). Only two reported feeling “about the same”.

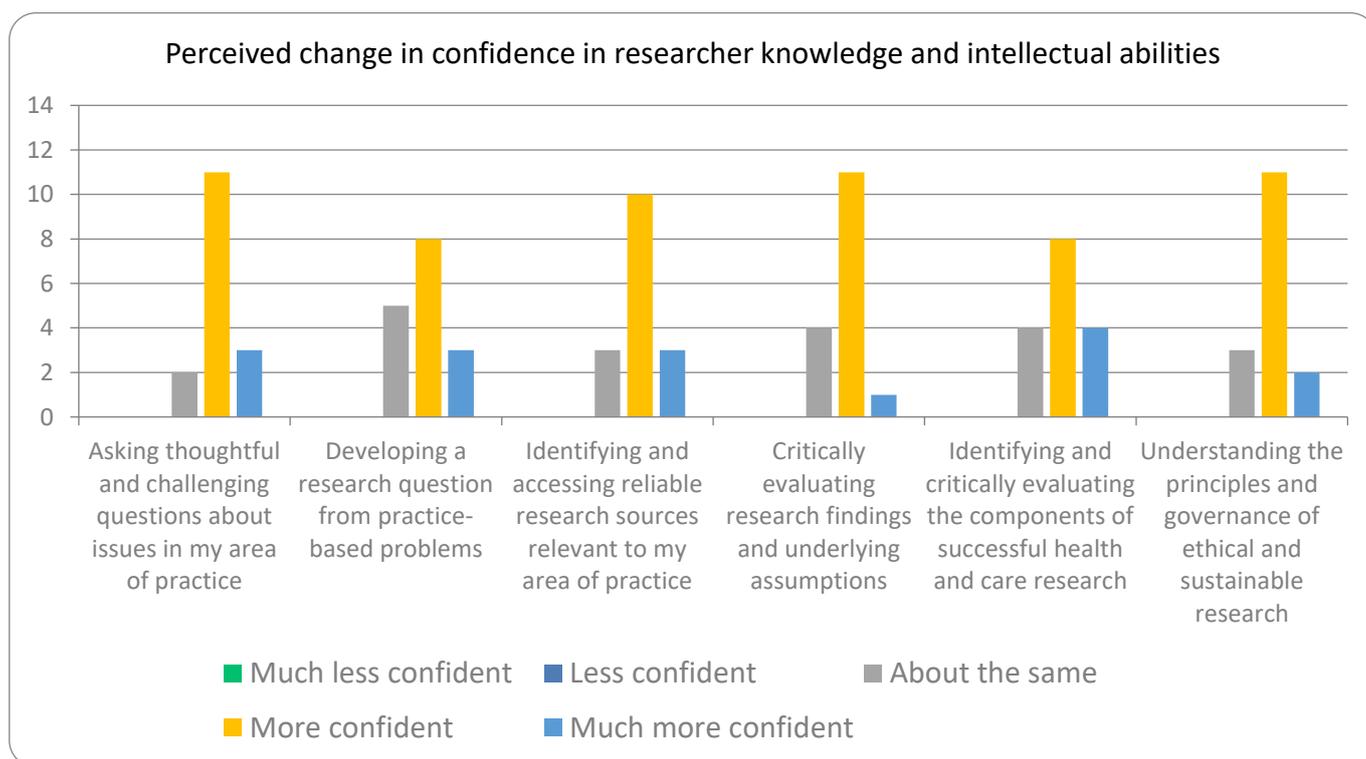


Figure 27

3.7.1.2 Problem solving (A2)

Within the Vitae RDF, developing a research question from a practice-based problem aligns most closely with the descriptor of ‘problem solving’ in the A2 sub-domain. In relation to this skill, half of the respondents (8 of 16) reported feeling “more confident” in developing a research question from a practice-based problem, with a

further three indicating they felt “much more confident” (see Fig. 27). Five participants, however, felt “about the same.”

One participant observed a clear connection between developing their creativity through the programme and their ability to identify and shape a research idea:

It's [developed] my creativity as well, that was one thing I spoke about a lot during this that I feel like I've never been a creative person. So yeah, I would like to do research and find something to base it around, but what's the point if I don't have an idea? (P8)

3.7.1.3 Information seeking (A1)

Developing a research mindset was also explored in relation to the degree to which participants increased their confidence in identifying and accessing reliable research sources relevant to their area of practice (see Fig. 27). The majority (10/16) reported feeling “more confident” in this regard, with a further three indicating they felt “much more confident” Three participants reported feeling “about the same.” Of note, one interviewee also described how the course had prompted them to return to reading.

3.7.1.4 Critical thinking (A2)

Developing critical thinking skills was a core element of the programme’s intended learning outcomes, and as such, a more detailed examination of how the programme design supported this is provided in section 3.6.4. In addition, at the end of the course, participants were asked to rate how their confidence in critically evaluating research findings and underlying assumptions had changed over the programme (see Fig. 27). The majority (11/16) reported feeling “more confident”, with one indicating they felt “much more confident”. One participant noted that the course had helped them to “think more critically” and another added:

[It] highlighted that critique is not criticism and to welcome position statements with curiosity to explore the unsaid whys

Four participants, however, reported feeling “about the same”, with one participating noting that “there could have been more opportunity for critical evaluation to further enhance my confidence.

Half (8/16) of the respondents also reported feeling “more confident” to identify and critically evaluate the components of successful health and care research since starting the course, with a further 4 indicating feeling “much more confident” (see Fig. 27). One person made a general comment to this point, describing how “*I have learnt a lot about research and it has raised my awareness*” and another noted “*I've got a clearer idea about what's required to carry out research.*” However, the same four participants reported feeling “about the same” in this area of critical thinking.

3.7.1.5 Ethics, principle and sustainability (C1)

Although understanding the principles and governance of ethical and sustainable research formally sits within the “Research Governance and Organisation” domain of the Vitae RDF, it is included to reflect its close connection with how participants conceptualise and approach research practice. The majority (11/16) reported feeling “more confident” in this area since starting the course, with a further two indicating they felt “much more confident” (see Fig. 27). Three participants reported feeling “about the same” in this area.

3.7.2 Growing as a researcher (Personal Attributes)

The next set of programme outcomes aligns primarily with Domain B of the Vitae RDF (Personal Effectiveness), introduced to participants as 'growing as a researcher.' These outcomes highlight participants' development of the personal attributes needed to sustain and progress their research careers.

3.7.2.1 Self-reflection (B1)

Developing reflective skills was a core element of the programme's intended learning outcomes, and a fuller discussion of how the programme design supported this is provided in 3.6.3.

In the post-programme evaluation, participants were simply asked to what extent the frequency or depth of their reflection on their strengths, limits, and learning needs had changed since starting the programme (see Fig. 28).

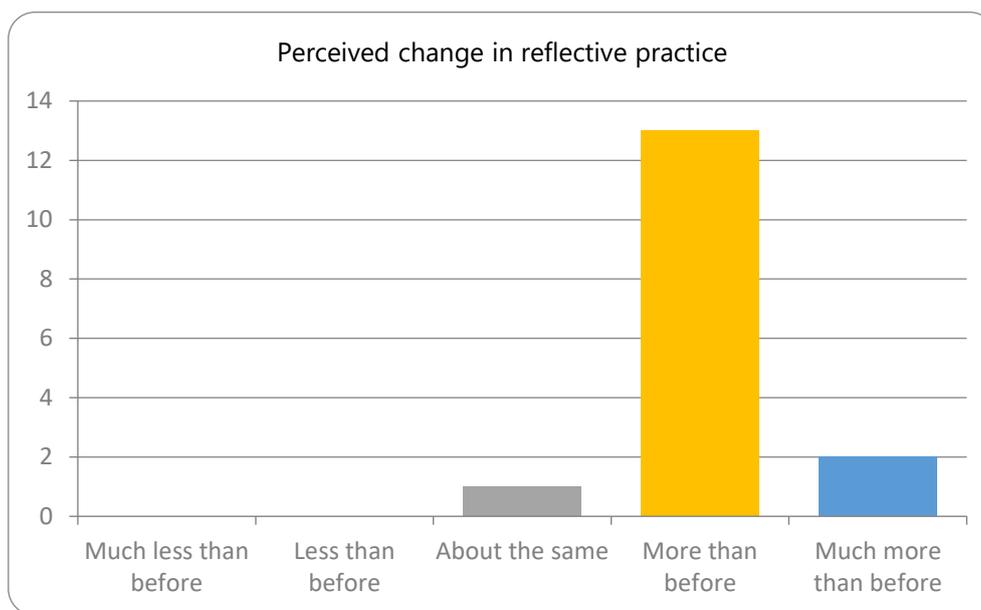


Figure 28

Most (13/16) reported engaging in deeper and more frequent self-reflection "more than before," with two selecting "much more than before." Only one participant reported "about the same."

As discussed in 3.6.3, feedback from the early workshops frequently highlighted the value participants placed on the programme's reflective opportunities, which encouraged self-reflection and helped them develop greater self-awareness of their strengths and weaknesses:

I am not as soft and kind in traits that I thought I was

I can be more expressive more than I thought

I am quick to come up with ideas and encourage discussion with others to develop my thoughts, I like a depth of knowledge to confirm proposals

I think for me it helped me to understand more about what I already know and how to make better use of my current skillset

It helped to understand limitations of myself

One participant described how they had begun to apply this knowledge to better advocate for themselves in a professional context:

I've learnt more about 'me' in general. Especially how I work, and this has allowed me to have open conversations with colleagues and managers about what works for me

Another participant explained how these insights had supported greater confidence to voice their views (see 3.7.2.2):

I am still the person I once thought I was despite all the changes, stress, issues and challenges of the last 5–6 years. It was very reassuring to get the insight from the MBTI results both about myself and about how other people 'come across'. I think it may make me a little more tolerant and also help me to see the positives in my own type and therefore give me more confidence to make myself heard too

In line with the focus on self-reflection, participants were also asked to what extent, if at all, their identity as a researcher had developed since starting the programme, with the majority (8/16) indicating that it had developed “quite a lot” and one indicating that this had changed “a great deal” (see Fig. 29).

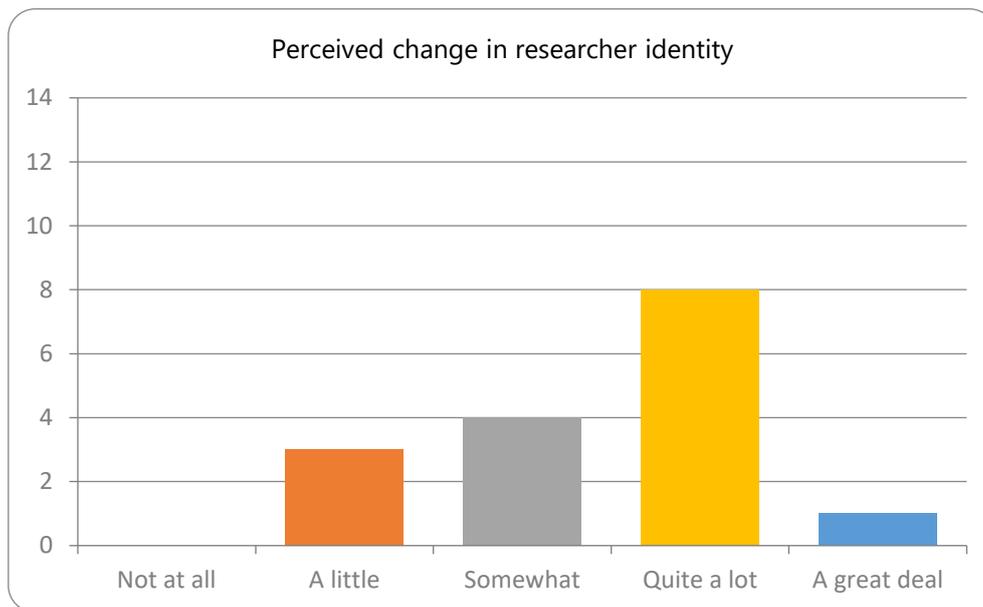


Figure 29

4 respondents reported that their sense of identity as a researcher had developed “somewhat”, but three people reported only “a little”, demonstrating a varied picture of how far participants felt their researcher identity had developed over the course of the programme.

3.7.2.2 Self-confidence (B1)

The development of participants’ self-confidence was both central to the theory of change and an important outcome in its own right (see Appendix A). Outcomes in this area therefore provide a critical lens for understanding the programme’s impact.

Most respondents (9/16) indicated that they felt “more confident” in their ability to contribute meaningfully to research since starting the programme, with an additional five reporting that they felt “much more confident” (see Fig. 30). Two participants reported “about the same.”

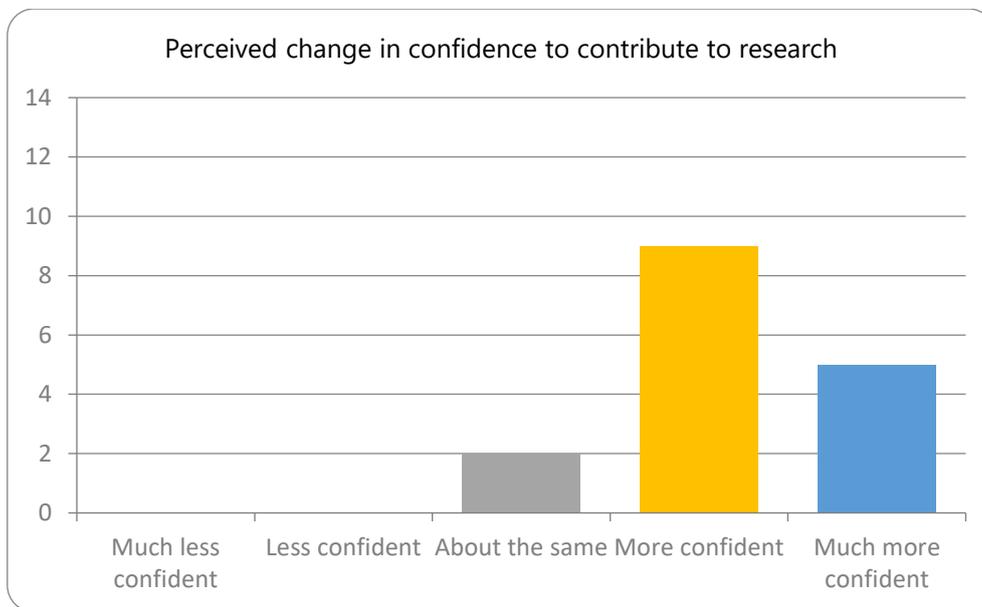


Figure 30

Comments in the post-programme evaluation variously noted on this outcome of the course. One simply reflected: *“More confident but aware [there’s] lots to learn”* and another stating *“it has just given me a lot more confidence”*.

Another located this confidence in applying research to drive improvements in professional practice:

I feel more confident in approaching research as a method of contributing to improvements in care and also to considering problem solutions

Similarly, another linked their increased confidence to feeling that research contributions can be a welcomed and valued part of professional leadership:

Recognition that in the right environment and audience it is welcomed and valued as an aspiring leader for change

One participant emphasised how the programme had helped them rebuild their self-belief, which in turn restored their enthusiasm and motivation to pursue research as a driver of improvement (see 3.7.2.3):

Having been plagued by self-doubt for the last few years, I feel the course has helped me to feel worthy and valued again and reignited my passion to do research to facilitate change

Another participant expressed a similar shift, explaining how the programme had given them the confidence to consider an academic research career they had previously thought was beyond their reach:

I’ve always fancied an academic research career to maybe progress into. I’ve always shied away a bit from masters and higher than that with thinking that I wouldn’t be clever enough. So, I think this has given me the confidence to think I could actually do it and have a go (P7)

One interviewee also described how the programme had given them the confidence to recognise that they could manage the academic demands of research and contrasted this with their experience in the workplace where encouragement and validation was often lacking:

I think I’ve probably got the confidence and the academic ability to do [...] to know that I could do that level of academic writing and reading and the effort and the sustainability it requires in an area that I’m

interested in and I'm passionate in and really want to see change. it's extra to the day job, isn't it, so you've got to really want to do it. And these courses have helped me, recognise I probably can. And it's not been a struggle [...] and the comments from all the people on the team that they've said about how I came across and the things that I say and stuff that, that's nice to hear that feedback as well [...] really validating. And quite a confidence boost as well when you don't hear it from your normal line manager or colleagues (P6)

A comment in the post-programme feedback echoed this view:

I felt like I'd lost my motivation early in the course, I'd had a number of knocks backs and was feeling disappointed myself for what I saw as my failures. I feel that participating in this course has given me the confidence to acknowledge my skills and share these better with the right people who value them

Likewise, one interviewee described how the course had helped them rebuild their confidence and resilience following a series of professional setbacks, and given them the courage to connect with influential stakeholders (see 3.7.3.4):

I think it's really helping me to be brave and to allow myself to be vulnerable and make contact with people who I think like, gosh, these are big board members and stuff. But I want to try and make a difference. And what's the worst that they can do? So, I think it has made me braver ... And then that's where they mentioned about that book by Brene Brown. Daring Greatly. So, I'm actually reading that at the moment [...] you break through those barriers and you go, they're just people, they might be in a higher role than me, but they're just people and maybe have what I've got to say will be heard. Maybe they will think it's important [...] I think I've just had quite a few years of feeling like I'm not important, what I do isn't important, so it kind of knocked my confidence and made me not want to do that. So, I think things in the last few months and partly due to this course and understanding myself better from doing this. It's definitely made me go 'I'm just going to do it anyway [...] I'm just going to e-mail them and go "Hi, this is me. I'm gonna do this [...] I feel like I can actually see where things are coming together now how I can be useful in different environments, (P9)

Another participant provided a similar account of how the course had boosted their self-confidence and courage to step outside their comfort zone and show vulnerability, which contributed towards a successful application for a doctorate place (see 3.7.3):

[I joined InRes] to increase my skills to be able to get on and also prepare me [to apply for a doctorate] And I think it has helped in the interviews with the confidence thing. I never felt so confident in an interview, which is just crazy, I just was able to put myself out there [...] when it came to doing the interviews, I was like, I've done scarier things. [...] So I'd say that it definitely has helped me to progress to where I've wanted to be and I got a place [...] I feel like outside of the course it made me push myself quite a lot harder with things like doing presentations, speaking out in meetings and I think having the safety net of like your mentor and the coaching group, I felt like I was able to do those things and try and then have a space to reflect [...] I definitely can say I've grown a lot of confidence in myself and my work-(P4)

3.7.2.3 Enthusiasm (B1)

The majority (11/16) of respondents reported that they had "more" motivation and enthusiasm for engaging with research in their area of practice since starting the programme, with a further 4 reporting "much more than before" (see Fig. 31).

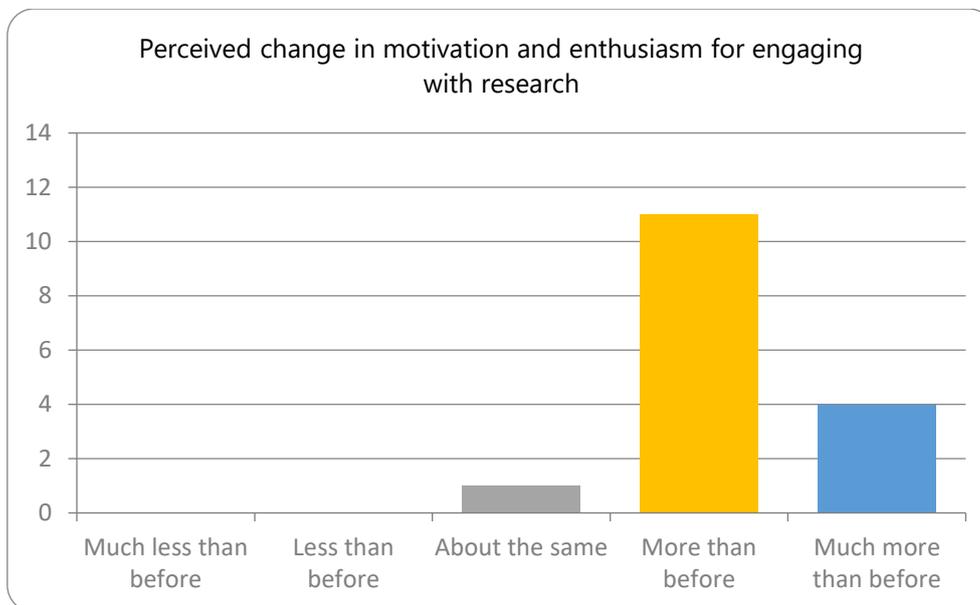


Figure 31

One participant, however, indicated that their motivation and enthusiasm was “about the same”.

Some comments in the post-programme feedback reflected on how this renewed motivation was shaping their emerging identity as a researcher (see 3.7.2.1) and their commitment to ongoing engagement in research activity (see 3.7.3):

I'm still some way off identifying myself as a researcher but it's given me the drive to keep pursuing my journey in research and has shown me I have a lot to contribute.

Definitely encouraged me to further complete research and promote research within my job role

In the interviews, one participant reflected on having “lost my energy a little bit in the last six weeks, that's been a bit of a journey, I guess, trying to get my motivation back”, but linked this to delays in receiving the funding they needed to take the next step in exploring their research idea.

3.7.3 Planning my development (Professional and Career Development)

A cluster of programme outcomes was also organised around sub-domain B3 of the Vitae RDF (Professional and Career Development), presented to participants as 'planning my development.' These outcomes are about building the awareness and skills needed to actively shape their research careers.

3.7.3.1 Continuing professional development (B3)

In the post-programme evaluation, participants were asked to what extent, if at all, their confidence in identifying their development needs and seeking opportunities to grow as a researcher had changed over the course of the programme (see Fig. 32).

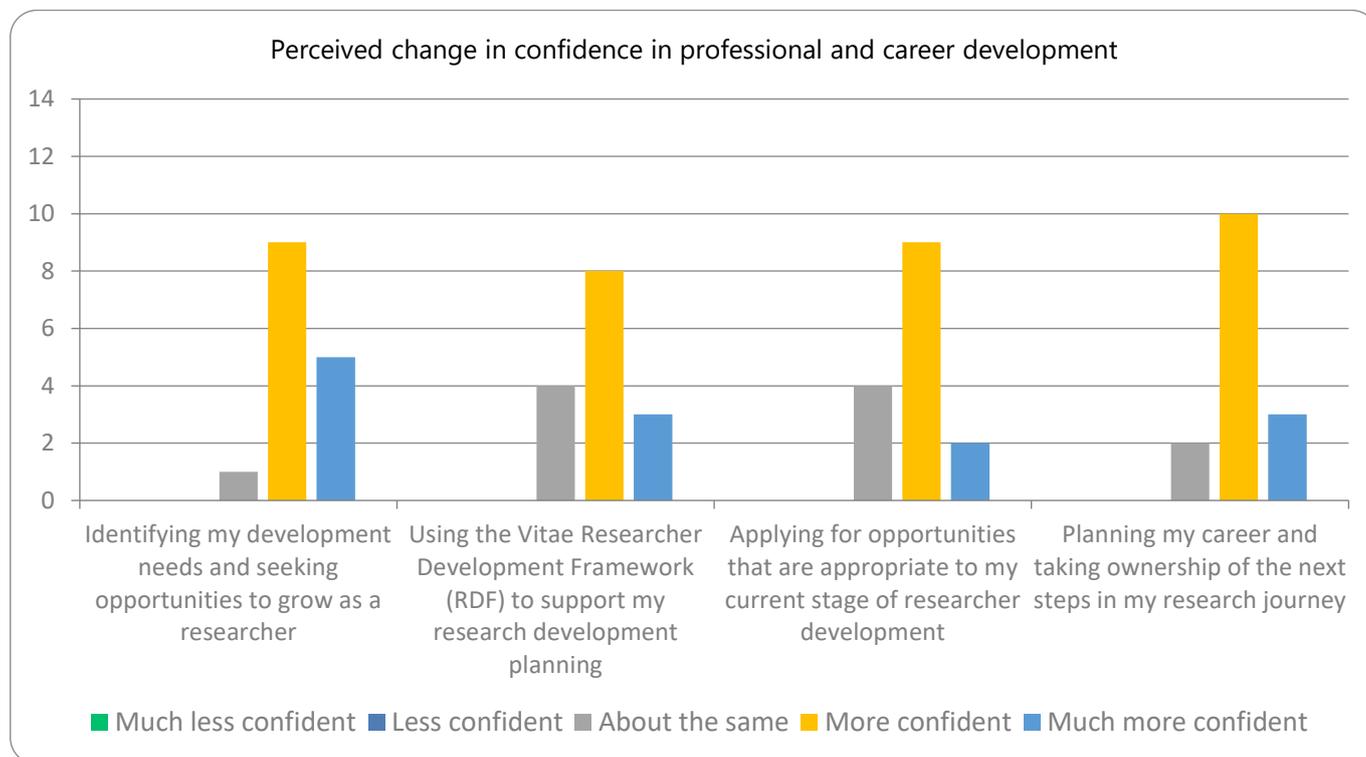


Figure 32

Most participants (9/15) reported that they were "more confident" in this regard, with a further 5 participants reporting feeling "much more confident". Only one person reported feeling "about the same".

Participants were also asked whether their confidence in using the Vitae RDF to support their research development planning had changed over the course of the programme (see Fig. 32). The majority (8/15) reported feeling 'more confident' in this regard, with a further three indicating they felt 'much more confident.' Four participants, however, reported feeling 'about the same'.

3.7.3.2 Career management (B3)

The majority (10/15) of respondents reported that they felt more confident in planning their career and taking ownership of the next steps in their research journey, with a further 3 indicating feeling "much more confident" (see Fig. 32). One participant described how "purely just doing the 5-year plan and discussing these with mentors, coaches and course facilitators" had supported them to plan and take ownership of their research development. The value of a longer-term plan was also highlighted by another respondent, who described a transformative change in moving from apprehension about their research future to a clearer, more goal-driven outlook:

Massive steps for me in thinking about my long-term research career (something that used to terrify me). Feel I now have tools to start creating realistic yet ambitious goals to work towards.

Two participants, however, indicated that they felt “about the same” level of confidence in this area.

3.7.3.3 Responsiveness to opportunities (B3)

9 out of 15 respondents indicated that that they felt more confident in applying for opportunities appropriate to their current stage of researcher development, with a further 2 indicating feeling “much more confident” (see Fig. 32). One interviewee commented:

I think the major take away was being brave enough to search for different funding opportunities which might cover your time to come away from your role and either build on different research skills via different courses or actually start putting together your projects and your grant proposals and things like that (P5)

Another participant noted that they now felt able to “actually move forward with things rather than stay stuck” in considering applying for a master’s degree, whilst others noted “I feel that I am now a more competitive candidate for future opportunities and my own sense of credibility” and “I now have the knowledge base and breadth” to apply for further opportunities.

4 participants, however, indicated that they felt “about the same” level of confidence in this area.

The majority of respondents (9/15) also reported feeling “more aware” of funding and development opportunities to progress their research career since starting the programme, with one participant indicating being “much more aware (see Fig. 33).

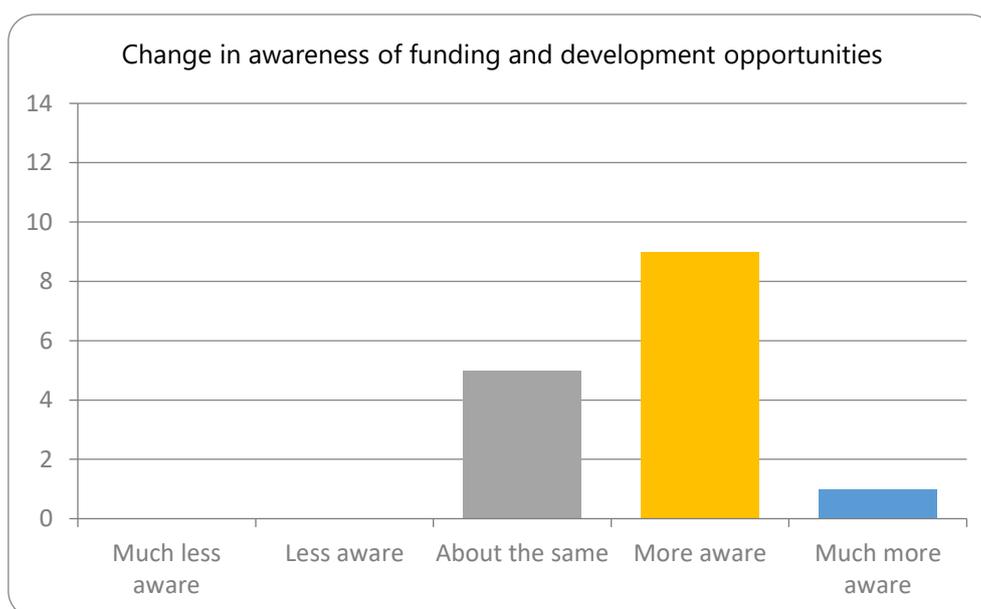


Figure 33

One commented:

It has helped me to understand other steps I can take I haven't known about before so has given other opportunities for development.

Another participant reflected on how the programme highlighted that even experienced researchers are still navigating different routes into research, reinforcing the idea that there is no single, linear path to become a researcher:

The eye-opening part for me was that even people that are established in research are still figuring out the different pathways. Like there's no set A to B in terms of a research idea and delivering that study, there

might be different funding streams that you'll need to access, different support, different groups that you tie into at various stages (P5)

However, 5 respondents reported having “about the same” level of awareness of these opportunities.

With regards to the degree to which participants intended to continue engaging in research-related training or development, 7 of 15 strongly agreed with a further 4 respondents agreeing with this statement (see Fig. 34).

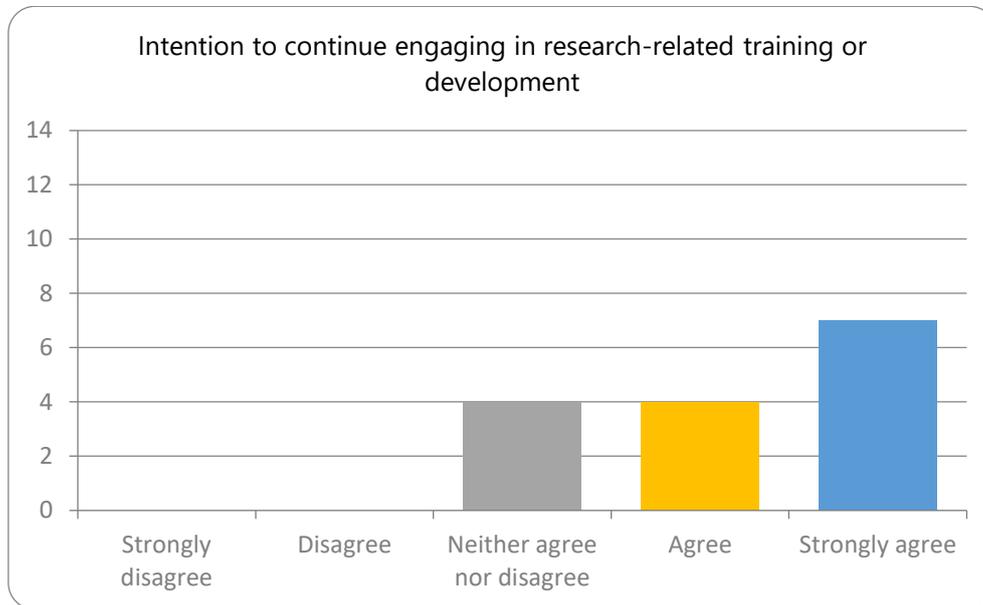


Figure 34

One participant noted:

Really well-run sessions which have encouraged me to engage with the subject matter and pursue further learning opportunities. Has been a massive help as I don't have a wealth of experience in my area of interest

4 respondents, however, provided a neutral response, suggesting that some participants were less certain about their engagement in further researcher development.

When asked what kind of research-related training or development they planned to pursue next, and what had influenced their decision, one person reported “*application to clinical doctorate*” and another “*access to a PhD*”. Two people also identified “*associate PI training*”, one adding that they wished to “*complete hands-on research*”.

One interviewee noted that the programme’s emphasis on personal development provided a strong foundation for moving onto opportunities such as internships or principal investigator schemes to learn more of the “harder” research skills.

Two more referred to their intention to complete a Masters, one in “*clinical research with help through a PCAF application*” and the other adding that they would also be looking for additional funded research training opportunities.

I would love to do a masters as a starting point to eventually deliver my own research. I'll also be on the lookout for funding opportunities to cover my work time so I can take opportunities to improve the skills I will need to deliver research

One person noted that they also wanted to “*pursue research training in global health, implementation science and cross-cultural dementia care*” with a long-term vision to support international collaboration in the field to

“develop evidence-based, culturally sensitive models of care that address global disparities and support sustainable, community-focused solutions”. One interviewee reported that they had received funding to deliver some training, evaluate its impact and use the findings to build a case for further research

In addition, three respondents described their intention to mentor, coach, and/or support others, often linking this to the skills, confidence, and inspiration gained from the programme:

Linking with X University to offer students ASYE mentorship and placement opportunities within my organisational team setting. Further develop my coaching and mentoring skills which I highly valued in this programme.

I have broadened my horizons and am hoping to develop my leadership skills in research. I think the feedback in my coaching group have been the most inspiration, I've always wanted to share my knowledge and help others but not found the right outlet for this, I feel that mentoring and coaching would really suit my skills and personality

Continue to embed research into X offers where I can and continue to support others

One person, however, noted that they were “undecided” as to what kind of research-related training or development they planned to pursue next, with others noting other considerations that were making it difficult to decide whether to continue. One cited an issue with “connecting with other researchers” and 3 people pointed to concerns with pursuing a PhD/doctorate, two of whom highlighted time issues:

The fact that it will take a lot of time and is a lot of pre work to do to get to PhD

I have decided not to embark on a PhD as I cannot secure any time to do this

Another participant also noted an issue with the *“time allowed /allocated by our Trust”* to pursue further research training and development more generally. One highlighted their *“career path”* as a consideration in taking forward any plans to apply for a clinical doctorate, although they noted *“there will be a lot of consideration towards it in the future”*.

For one interviewee, whilst they were now more aware of opportunities, they preferred to focus on completing the programme before deciding their next steps. They felt the course had taught them the value of taking time to reflect before moving forward towards their goal of entering clinical academia:

I know there are opportunities now, but even my mentor was, like you want to do anything? I said no, I want to finish this course first and reflect on them and then take on the next step. But I don't want to rush anything and I think that's what this I've learnt from this course to take my time and do what I have to do. I just want to go into clinical academia (P3)

One interviewee simply commented on how the enjoyment and value they derived from the course had inspired them to look for the next opportunity:

I've really enjoyed it. It's been really beneficial for me and I probably will miss doing it. When I'm finished, I'll find something else (P7)

A third interviewee, however, reflected on the wider researcher development landscape, observing that much of the available training and development, including InRes, seemed to focus on NIHR pathways. Whilst they recognised that this is where much of the funding and research activity is concentrated, they felt that these routes might not suit everyone:

Everything seems now to be geared totally towards the NIHR learning courses and schemes. And if you don't want to go down that route [...] and I feel like there is an element to that in this course that it is also gearing people up to go into that pathway, but if that's the way, that's where the money is, that's where the research is going and stuff (P9)

In addition, one participant described how the course had nurtured their curiosity and interest in pursuing a research career, but that it was difficult to identify next steps without a defined research area in mind, although they were reassured to learn that others were at a similar stage of not feeling ready to move onto a PhD:

So, I guess it's kind of just bubbling that curiosity a bit, but it's the opportunities, isn't it? And I think because I don't have my own idea of what I want to go and research, there's nothing kind of glaringly obvious that this is what I'm going to do, I'm going to apply for a scheme and do a PhD. I think that that's probably still not clear, but I don't know if it ever can be. I think it's just been good to get that information that loads of people are thinking like that. There's loads of people that want to get involved but don't want to go straight to a PhD (P2)

They noted that the course had highlighted the rarity of joint posts that left many clinicians having to create their own opportunities to integrate clinical and research work, thus prompting exploration of lecturer roles as a route to securing protected research time:

I think from what I've gathered from people, the kind of people who want to get involved in research in a clinical role, they just fight and implement it into their role and then it's if they've got a manager who's supportive, it sounds like it just kind of then becomes part of their role. You don't really have that split post in the NHS, do you? From what I'm seeing, it's more that they are created by that person, there's not one that comes up that you just apply for. I kind of explored whether you could do that like in a lecture role. I think you have like more protected time in that (P2)

Another interviewee provided a detailed account of how the course had prompted them to reassess their approach to building a research career and to broaden their view of possible pathways and opportunities for involvement in research:

I was also inquisitive to find out how my behaviour in terms of applying for the pre-doctorate and the doctorate, which I didn't get, how I could actually improve to change my behaviour or my performance to be successful in that and get a research career. But it might be that my research career doesn't involve a pre-doctorate [...] maybe a PI role, there's multiple different ways you can be involved, not necessarily to be a principal lead researcher, but to be involved. And I looked also at Cochran and started some of their training and you can actually be a very active reviewer and also a member and be sent stuff to review as part of PPI. So, there's different ways in to get that credit. I looked at doing scoping reviews with my mentor and we looked at doing a systematic review and we got to explore what is a systematic review, how does it work, when do the numbers start to kick in and also a scoping review, how could that work? And I thought it would be a lesser thing, but actually a scoping review in terms of what I want to look at is more interesting because you get to look at stuff that's not really out there, so it's new ideas and new ways forward. P10

They explained that the programme had shifted their approach to pursuing a research career, encouraging a more strategic approach and openness to alternative routes, partly influenced by a growing awareness of the competitive nature of securing a PhD and the importance of building a network (see 3.7.3.4):

So InRes has been quite good actually. When I arrived, I had been running around trying to get into research or thinking this could be a great thing for me in the future [...] I got quite a lot of the way with [applying to] a PhD program [...] just didn't get the place. So that's how I arrived I felt like I was very

energetic dog running around a field with a ball dropping at everyone's feet and seeing if they throw it [...] but now that I've done the program it's quite clear that my approach to the whole thing was laughable. It's been a good experience, but yeah, there's a lot more work to do [...] I've realised the enormity of the entire thing.... what's actually required and my perception before the program was just go and read a bit of a few papers and get it all together [...] I've really enjoyed the course. I mean it's opened my eyes to what's actually involved in getting a piece of research through so. And there's so much competition because there's so few spaces [...] you have to start at least a year in advance before you actually apply, you have to get a supervisor, you have to network, you have to have links to people who can help you. It's not a simple process, it's very complex. But the bridging programme is not the only way into getting a doctorate – there's lots of other stuff that came out from the program like being an associate PI, various other things [...] it would be easier for me to access a professional doctorate [...] So it's made me think [...] what I've done now is I've taken a step back and just said let's wait a year [...] So, from that point of view, it's been instrumental in just saying, you have to take your time. This is going to take time. You might not get there. You might have fun in the process of getting there, or it might take you somewhere else. It might get some other opportunity to come up. Who knows? (P10)

Another interviewee also described how the programme had supported their ongoing professional and career development after a “period of flux” marked by a series of knockbacks from job and training opportunities, helping them clarify their direction by identifying their strengths, balancing ambitions with realistic goals and setting clearer boundaries around their workload:

I've got something out of every session. I found it really useful and I think the only thing that I suppose I'm struggling with is this 5- or 10-year career plan because a 10-year career plan for me is being retired [...] but everything was a big muddle and I think it's allowed me to separate some things out and put into context and put some boundaries in place [...] I'm a bit of an over-doer. I'm like, oh, I can do that. And then I overwhelm myself and go I can't do any of this [...] So, it's bit of sort of putting those boundaries in place and focusing on my strengths, I guess really and going, okay, I'd like to do this, but I think I'm probably better at this. So, it's balancing that. (P9)

They went on to explain that through the course, they had developed a stronger sense of their core interests, particularly around equality, diversity, and inclusion, and begun to build their confidence in thinking beyond a narrow research identity to pursue a career direction more aligned with their passions:

It's really cemented in my mind that I'm very interested in equality and diversity and improving – for the patients and for staff - just making improvements really and finding ways to engage with the right people who are making those changes and not putting myself in this box that I do X research. I'm now breaking out of that and going well [...] I might as well forge my own path in things that I'm interested in (P9)

Inspired by their growing confidence and clearer sense of direction, this participant had already begun making tangible changes to create more space for meaningful work, taking on new voluntary and leadership roles in both research and wider professional contexts that aligned more closely with their values:

I've knocked a day and a half off my role partly because I just want to have the freedom to do a little bit more of what I want to do, whether it's paid or not paid, it's like I just want to be able to have that space, to get involved in things that I want to get involved in [...] I've also just got the deputy chair for the Disability and Wellness Committee. So, I'm involved in all the EDI strategy meetings at work and stuff like that. So, I have made some moves, so I've got a protected half a day a week for that role [...] I've like joined things that are voluntary, that just interest me. So, I'm like a research partner for Versus arthritis. And I'm a

safeguarding committee member for local charity that supports people with learning disabilities and things like that (P9)

3.7.3.4 Networking and working with others (B3/D1)

Developing networking skills was another key learning outcome that sits within the sub-domain B3 of the Vitae RDF (Professional and Career Development). Relatedly, measures of collegiality, collaboration and team working within sub-domain D1 (working with others) were also explored as integral components of participants' development.

In the post-programme evaluation, participants were asked to what extent, if at all, their confidence in building and using networks to support their learning and development had changed over the course of the programme (see Fig. 35).

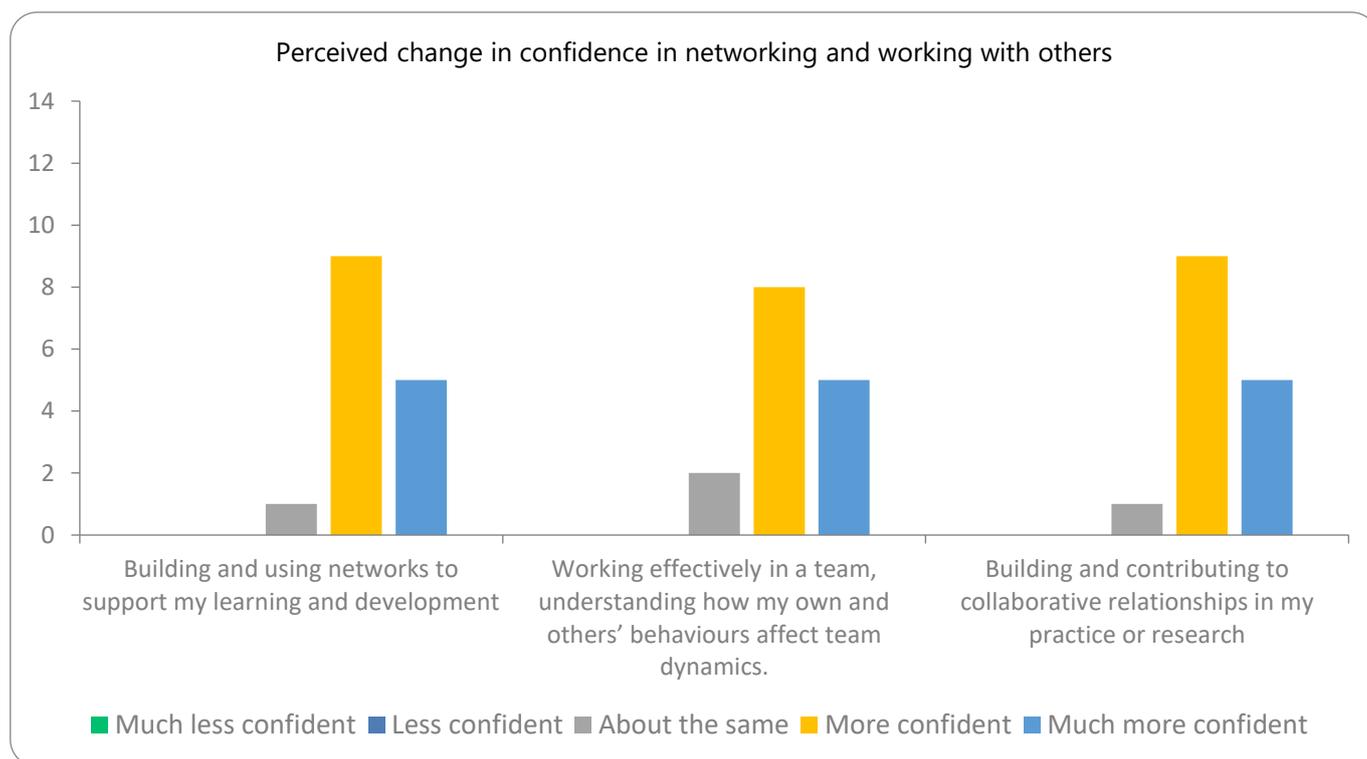


Figure 35

The majority of respondents (9/15) reported feeling "more confident" in this area, with a further 5 feeling "much more confident". Only one person indicated that they felt "about the same". One participant highlighted the value of realising that others shared their feelings about networking, which helped reduce anxiety and build confidence:

Learning how others feel the same way as me about the idea of networking and it's more of a shared opinion that I shouldn't be nervous about [...] I feel more confident regarding networking

In addition, all respondents agreed that they had improved their understanding of how to form and build networks at the end of the second session that focused on this topic, 1 of whom strongly agreed. 3 comments highlighted networking as the most valuable part of this, one pointing to "learning the importance of a support network- I really enjoyed the anecdotes from Jane and Gillian" (see 3.6.2). Another reflected on how the network mapping exercise provided insight into how their current networks might be strengthened, prioritised or revisited over time:

The network map reinforced that I have strong and weak networks, some are worth focusing on at various points in life or during the development of self, objectives or research. Others are there and may be important at certain points so therefore no need to disconnect but when stuck reassess usefulness

By the end of the programme, 8 of 15 participants also reported having “more” access to a network of people that could support them in progressing their research career, with a further 6 indicating that they had “much more than before” (see Fig. 36). Only 1 person reported having “about the same” access to such a network.

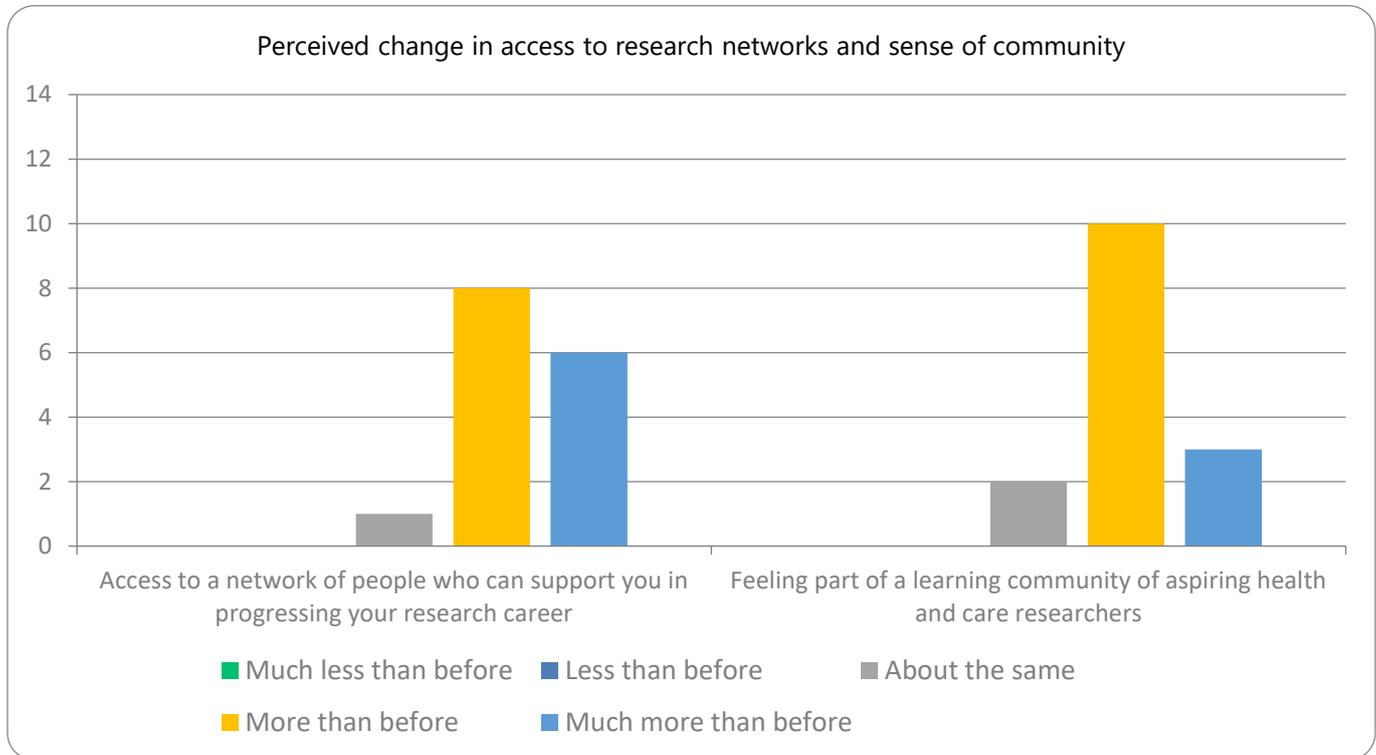


Figure 36

Measures aligned to the sub-domain D1, working with others, also showed positive change. In relation to collegiality, participants were asked whether they felt part of a learning community of aspiring health and care researchers (see Fig. 36), with 10/15 feeling this “more than before” and a further 3 “much more than before”. 2 participants reported feeling “about the same.”

8 of 15 also indicated feeling “more confident” working effectively in a team and understanding how behaviours affect team dynamics, with 5 feeling “much more confident” and 2 “about the same” (see Fig. 35). Similarly, 9 of 15 felt “more confident” building and contributing to collaborative relationships, with 5 “much more confident” and only 1 reporting “about the same” level of confidence in this area (See Fig. 35). One respondent described how the programme had encouraged them to prioritise trust-building and collaboration in their workplace:

Making time to get to know and develop trust with my new colleagues to build a strong team was more valuable in the early days of my new team than quickly picking up case work. [I've] become a trusted and respected member of the leadership team

Post-programme feedback comments also highlighted how the programme had boosted participants’ confidence to make connections both within and beyond the cohort, helping them to expand their networks:

Had some good links previously but now have so many more

It's allowed me to gain confidence to network remotely and I have used the opportunity to link in with people on the course to support with my career

The coaching especially encouraged me to push the normal work boundaries and seek contacts with chief nurses, for example

Made me feel more comfortable with networking/collaboration and has given me more of a means to do so

Developing understanding of networking has helped to develop confidence to approach others that may be able to help on my research journey

One participant explained that a more positive self-perception developed through the programme had helped to build their confidence to make connections:

I always felt that I had no real personality and was socially awkward, especially in group settings. I think the course has helped me to realise that I do have things to offer and that people genuinely value my input

Another highlighted that they had developed their practical networking skills, but identified this as an ongoing area for improvement:

The course has helped to develop [this skill] but it is still a weakness for further development for me as I find it difficult to reach out

One interviewee described how the programme helped them to see networking as an essential part of becoming a researcher, and through this recognition, to identify it as a key development need:

The networking is one of those things, like I'm not socially geared to networking to be honest and if you look at the world of social media, social influencers, all that sort of stuff, I'm not that person. So in that respect, it just pointed out to me that that's one of my biggest deficits and probably one of my biggest weaknesses in life is my social isolation, and possibly social anxiety [...] so that's something to really overcome [...] so you're dealing with your own personal – I would like to say weaknesses, but your own personal traits [...] I think networking is probably for me, one of the most definite things to achieve in terms of achieving your research aims [...] I didn't realise the importance of that before starting (P10)

They went onto describe how they had started to address this gap and extend their networks through submitting an abstract for presentation at a conference, and making targeted professional connections to try to identify a potential PhD supervisor:

I think it's opened up that one step of just being involved in these things [...] you create links and you can't really force them [...] I've increased people on my LinkedIn to get the right person. If you want a supervisor, they've got to have a PhD. They've got to have interest in supervising and the ability to supervise (P10)

Another participant described how the programme itself had helped them expand their networks through building connections with peers, facilitators, and guest speakers who had offered advice, shared experiences, and signposted opportunities:

Some things I've learn are probably more obvious now. Like networking with people in different research institutions and things like that to be able to sort of identify the right opportunities [...] But I do think that being part of the course has provided me with that massive benefit that I've got links to people that are either asking the same questions that I will be asking or support us in the course so would be able to help with signposting and that might be people delivering the sessions or even the guest speakers that have been involved (P5)

One interviewee similarly valued the connections made through the programme, particularly with those on the clinical academic pathway. They appreciated knowing who they could approach for future support:

I've enjoyed the course because I've seen people on that [clinical academic] pathway that are on the course and I know who I can go back to if I need to because I'm not just doing the course just so that I can have the certification or say I've done this, it's something I want to build on, so I'm glad I've met people that I can go back to if I need help eventually and then even the tutors you can actually e-mail at any point and they will respond to you (P3)

This view was echoed in the post-programme feedback:

Loved the follow-ups from the R&D team who delivered the course. Being able to count myself as part of their network means a lot and has shown me that putting yourself out there can be really beneficial. It's given me confidence to reach out to people with similar interests to try and identify opportunities to collaborate

Reassurance that networking opportunities and support will be ongoing even after the course has come to an end

One participant explained that the programme had enhanced their networking skills by highlighting the value of open, meaningful engagement in building stronger bonds and a greater sense of belonging within the learning community.

[I learnt about] networking and how to network and to get rid of the small talk a little bit because actually once you start to not get too personal but ask about and understand people for who they are and the differences and what they enjoy [...] it's then you actually really get to know the person and you kind of connect on more than a superficial level, on a friend level. You've got that kind of relationship that you can trust each other. Definitely that. And then the vulnerability as well, just like how important that is to connect. So, crying in front of people, I did that and I was like, wow, that felt really nice that people listened. You've got that space and it allowed other people to kind of connect with similar things. And I think just by allowing yourself to be like that, it allows other people to be like that as well. And again, you build connections a lot - not quicker, but they're more meaningful (P4)

3.7.4 Communication and leadership (Engagement, Influence and Impact)

A cluster of programme outcomes were also aligned with the Vitae RDF domain D, Engagement, Influence and Impact, including a focus on developing the knowledge and skills to communicate research in ways that ensure its wider impact. Within this domain, particular attention was given to measures aligned with the 'influence and leadership' descriptor, reflecting the programme's aim of preparing participants to engage with future research leadership roles by critically analysing the components and importance of leadership in a practitioner research environment.

3.7.4.1 Communication methods (D2)

In the post-programme feedback, the majority of respondents (9/15) reported feeling "more confident" in communicating their ideas clearly and effectively to different audiences, with a further 5 indicating that they felt "much more confident" (see Fig. 37)

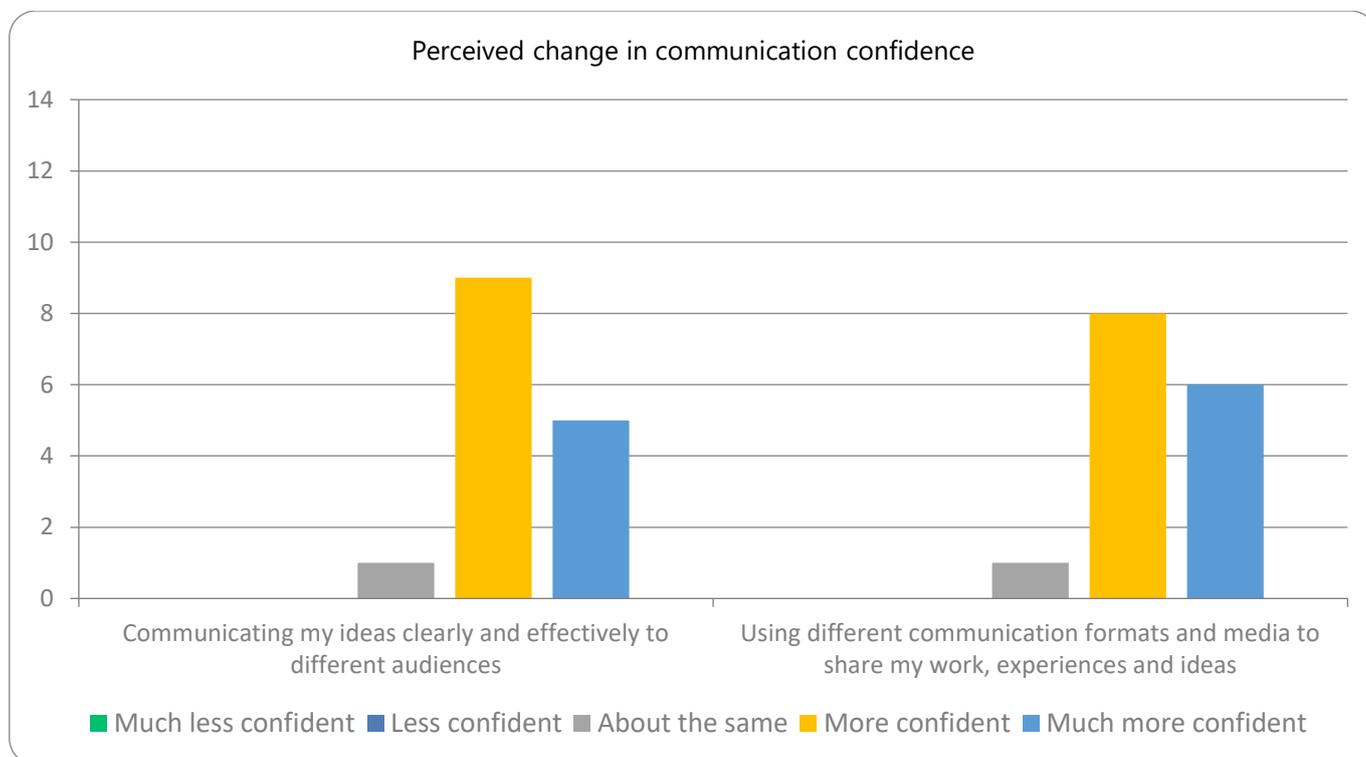


Figure 37

Only one respondent reported feeling “about the same” in terms of their confidence in this area, with one interviewee noting that they were already “*relatively confident in delivering presentations and things anyway*” (P1)

The majority of respondents also indicated feeling “more confident” in using different communication formats and media to share their work, experiences and ideas over the course of the programme, with a further 6 feeling “much more confident” (see Fig. 37). Again, the same respondent as the previous measure indicated no change in this area.

In the post-programme evaluation, some participants shared reflections on how the programme had supported their communication confidence and skills, one simply reflecting that they had “*learned a lot about myself and my communication skills*”, while another affirmed this as a clear area of development. A third respondent linked greater self-awareness, self-belief, and understanding of others to their ability to adapt their communication style (see also 3.7.2.1)

I think doing the MBTI was really a turning point for me, actually understanding what makes me tick and how the balance of traits changes in situations really helped me to understand how my type of personality can be useful and valued, and also how to manage others around me with different personality types

Similarly, another participant emphasised adaptability, describing how they had learnt to tailor their communication to others’ preferences and sought feedback on their approach:

Adapting my methods of communication to others’ preferred styles and actively seeking verbal feedback for my own validation

One participant simply described “*just feeling braver with regard to this element*”, with some adding that the programme had encouraged them to take creative risks or show vulnerability in communicating with different audiences:

Sharing vulnerability to an unfamiliar audience

I tried using videos and cloning my voice to tell my 5-year plan and it was interesting and a big discovery for me because it is not something I would have done on my own

One interviewee expanded on how they had applied this learning about vulnerability and creativity in practice, adapting their approach to presentations to better connect with audiences and make research more engaging:

I did a presentation and by remembering that, like being vulnerable, made me change how I delivered the presentation to connect with the people that I was working with. So that was really important. Also, the dissemination, like being more creative and I think that links to the same example that I used, I was more creative in how I deliver things and just it made me think about PowerPoints and how research can appear to be really boring [...] So that was something that I definitely took from it (P4)

Presentation tasks were highlighted as a valuable challenge in prompting participants to think more creatively about how to convey their messages (see 3.3.3):

Doing the presentation has challenged me in terms of creativity and presentation

Lots of opportunities to think differently and creatively about how I portray information. Has given me food for thought when speaking with different audiences (particularly those who might be new to research) about how I can effectively get my point across to help with engagement

3.7.4.2 Influence and leadership (D1)

Aligned to the 'influence and leadership' descriptor in RDF domain D1, participants were asked whether their confidence in critically reflecting on what leadership involves, and why it matters in practitioner research, had changed over the course of the programme. Most respondents (11/14) felt "more confident," with a further 2 "much more confident," and only 1 reporting "about the same" (see Fig. 38).

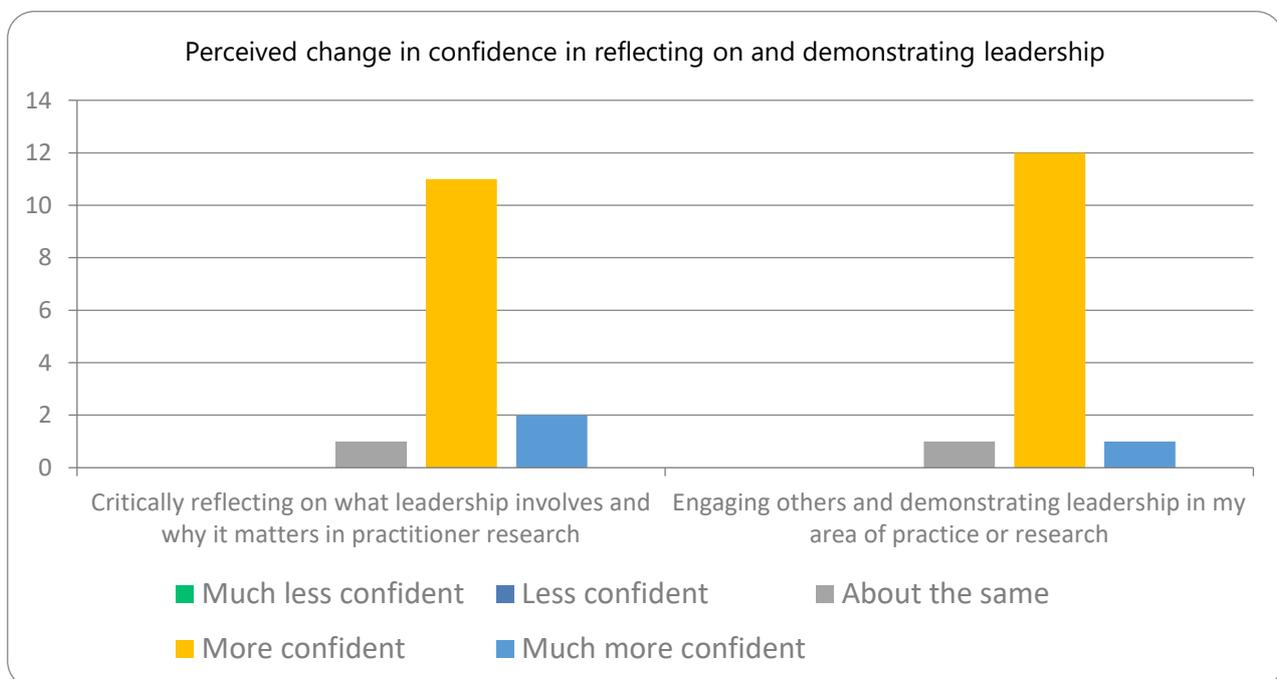


Figure 38

Similarly, 12 of 14 felt "more confident" in engaging others and demonstrating leadership in their area of practice or research, with 1 "much more confident" and the same individual as the previous measure reporting

no change (see Fig. 38). One participant illustrated this by describing how they now contributed to decision-making within their leadership team:

Connecting my ideas with the leadership team and supporting their decision making whilst championing my own initiative and creative methods of practice

One participant described how increased knowledge about research was key to feeling more confident in demonstrating leadership:

Having the knowledge to feel confident enough

Another expressed how the programme had increased their confidence and motivation to lead and influence in their area:

Confidence has definitely increased and it's encouraged me to further engage

In addition, participants were asked to what extent they saw themselves as someone who could lead or influence research, half (7/14) responding "quite a lot" and the other half "somewhat" (see Fig. 39).

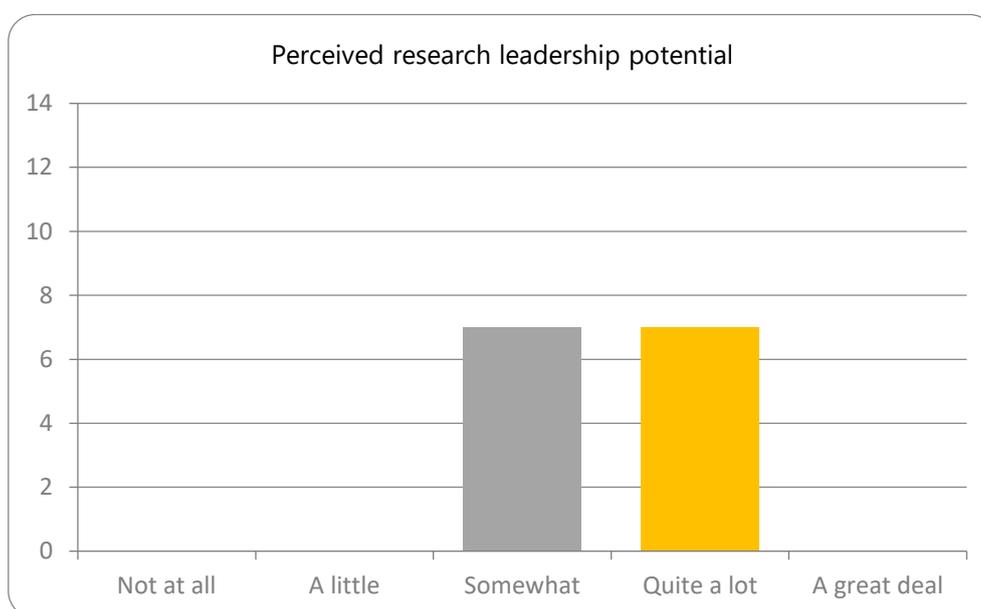


Figure 39

Overall, the results suggest the programme strengthened participants' confidence in their leadership knowledge and skills, as well as their self-perception as leaders in practitioner research. Yet for some, this remained tempered by personal challenges in translating confidence into practice:

I do feel like I've gained confidence and could probably rise to the challenge, but I am still held back by my inner critic when thinking about whether I can do it

As an introvert I think this will always be something I need to work on but I have increased a little in confidence

I'm always a bit self-conscious and maybe it's something to work towards but the course has definitely lit a fire to encourage me to strive to be a research leader

To explore these experiences further, interviewees were asked how the programme had supported their understanding of leadership. One participant viewed leadership learning on the programme as part of the

“softer skills” element of the course, seeing its role in an introductory research programme as helping participants begin to shape their identity and sense of direction towards future research leadership:

[A focus on leadership] has been a lot less than the critical mind type stuff. And I guess that is in a way what I've thought about the softer skills side of things and the more leadership side of things. It's very much like a startup course, isn't it? Like essentially, I think that's what it's supposed to be. Like an introduction to research is could I see myself leading research or leading research and innovation at work to promote research? I feel like I probably wouldn't be fully equipped to do that at this moment in time (P8)

A number of participants noted that this element of the course was less evident than the emphasis on critical thinking. However, one participant described how the programme developed their leadership skills by supporting them to “take ownership of particular ideas,” and reflected that it had reshaped their view of leadership from holding power and making decisions to sharing power, showing vulnerability, and enabling others’ growth:

I think there was a lot of learnings that I took [...] about vulnerability and things like that, which I found really interesting and around just because you're in a leadership position or you're in a position of delivering a focus group, whatever it might be, it doesn't mean that you have to know everything in order for it to be a success or in order for you to run that group effectively. It changed my perspective on leadership because I thought leadership was about having the power of the group and having this power in terms of decision making and things like that, but in actual fact there can be real benefit in giving the power up. So, you're in a leadership position still, but you got to show that vulnerability to give the power up in order to enable growth (P5)

They described applying this new perspective to their work with underserved communities, emphasising the role of vulnerability and admitting uncertainty, contrasting this with the expectation that healthcare professionals should always have the answers:

There's massive issues with reaching out to underserved communities and getting them to be involved in research and I think a big problem is researchers can be a little bit apprehensive about being vulnerable going into communities and sort of admitting that you don't have all the answers. And I think that's probably hangups that we have from being in healthcare professions, because in healthcare professions people expect you to have all the answers and in research it's like the polar opposite. You've got to admit that you don't really know when you're trying to find out what the issues are. For me that's been really good on the day-to-day and I think that's where the course has immediately benefited me and, in a good way, it's not what I expected because I didn't expect to have learnings that would impact my day-to-day as opposed to my future research journey (P5)

Another participant explained that developing self-awareness through exploring personality traits had deepened their understanding of leadership (see 3.7.2.1). They applied this learning in practice by adapting their approach to different personalities, enabling them to lead teams more effectively and support colleagues to engage with research:

I think I've learnt a lot. There's still a lot to learn. [...] So in terms of personal development, I think one of the sessions is on personality traits and understanding yourself a bit more and I think from that it's been really helpful, although I've done personality traits previously [...] there's a guidance for understanding yourself a bit better and understanding how you can interact with other people, how you can be a leader and I think that has been really insightful and valuable for me in my role outside of research [...] I think that the leadership element and the way that it's made me understand how I interact with others has been really

beneficial for that element as well [...] I've definitely been able to apply it in my current role. I have a bit of a light bulb moment sometimes because I can see that we all have those personality differences and challenges, especially when you're leading a team and you might be a slightly different personality - to lead in a better way to understand that what they need from me might be slightly different from what I think they need. And I think in that way, I've learned and developed really well from the course, and the information that we got around our own personality traits [...] we've got that that leadership element in research, but to have that leadership element and that understanding of leadership, and actually to utilise the skills and the tools has been really beneficial, not just for research but outside it as well because of the role [...] we're always looking to develop those nurses and AHPs to have that research pillar and embed that culture of research (P7)

Similarly, another interviewee reflected on how the programme's focus on personality types and self-awareness now informed their leadership approach, prompting them to adapt communication and management styles to meet the needs of different team members and to practise more active listening in their supervisory role:

When we did the personality types, I guess that was good to think about kind of how I am as a team lead and how I work with those around me. I guess it feels like an undercurrent as we've kind of done the other sessions then like I guess learning about engaging different people through different methods [...] it's about directing and leading people who are different, who need a different method of access [...] you recognise that you're then implementing that into your work. I think I probably have taken it to some of my - because I supervise quite a few members of staff and one who's not in my discipline, so that's been tricky because we've had a gap in leadership for them. And I think sometimes you find yourself kind of thinking about that more active listening, because you just want to give the answers, don't you? And tell them what to do. I think it probably did make me think initially about kind of the staff that I work with and their personalities (P2)

One participant described how the course had supported their leadership development by building skills for progression into more senior healthcare roles, where effective leadership was linked to research capability and the use of evidence-based practice to justify decisions.

I'm applying for jobs at the moment, so the fact that when they ask have you done anything research related and I talk about InRes and [...] what I've picked up it helps for interviews [...] I've noticed I've had ward managers that don't even have an idea of what research is about [...] most people don't even know that auditing is a type of research I know, so I think it's a thing to be included in leadership [...] it really helps in everything you do [...] to get information or do an evaluation of your role, that's part of the research [...] there's evidence-based practice [...] research answers the question 'why?'. So, people always ask why we are doing this and the reason why behind whatever you're doing, it helps because I always have a reason, a rationale behind all of my actions (P3)

Similarly, another interviewee reflected on the interconnection between leadership and critical thinking, with skills such as contributing ideas, justifying decisions, and taking ownership central to both. Although they felt leadership was less prominent than critical thinking in the course, they noted that group discussions had helped them to practise some of these skills and build confidence to apply them in future (see 3.7.1.4):

[Leadership development has come through] probably less so than [critical thinking], but maybe that's more so because that was in my area [Leadership] a skill that I wanted to develop. And I suppose they come hand in hand because it's sort of the critical element of it. The group discussions and dynamics and having the opportunity to put yourself forward and be vulnerable, it's OK to have an idea and you're not going to be criticised straight away for it, it's actually something to embrace and have the confidence to do. That's

what I found in all the sessions that that's really come through about having the confidence to get your ideas out there and take ownership of them and be able to explore perhaps why and justify it and be accountable rather than kind of hiding behind other people's ideas [...in future] it won't feel alien to me. And for those that are already in that arena, hopefully they will spot that's what I'm doing and it will be familiar for them (P6)

Another participant reflected on the limits of research leadership within advanced practice roles, but noted that the course had helped them reframe the potential for development in this area by supporting others alongside aspiring to lead their own projects in the future:

Leadership I've looked at in terms of at a micro level when I briefly looked at it within advanced practice - research is not our strongest strength. So, we're not actually carrying out research within advanced practice, and why is that? [...] a lot of people get their post as advanced practitioner and don't want to do anything else. They just wanna come to work. Go home. They wanna do their portfolio. So, in terms of that leadership role, that's at that level. Then in terms of leading an actual research project. So that's what I want to do in terms of implementing a research project [...] I could supervise people in terms of if they were doing a research module, maybe I could offer them some coaching or mentoring, but in terms of being a leader in the future, I could see, you know, in 5-10 years starting a leadership career, but right now in terms of leading a piece of research or a group, I'm not even close (P10)

Some participants gave more cautious assessments of how far the course had developed their leadership knowledge and skills (see also 3.6.2). One noted that although leadership development had been examined through exploration of personality types, creativity, and communication, it had not significantly advanced their understanding. They suggested that this perception may be partly due to not currently seeking a leadership role, which limited their engagement with this aspect of the course:

I think there has been an aspect of [leadership in the course] but I don't necessarily feel like I've benefited from that too much at this point. Some of the early stuff about your personality type and things like that would be quite useful. And kind of helping you to be more rounded as a leader and how you can kind of tap into some of the aspects about creativity as well. Even reflection. But not awfully personally at this point in my career, I don't want to be in leadership right now, so I don't know if it's reflective of my personal preference.... [...] in terms of using your skills to influence others, the communication stuff. And how you can obviously pass on the message of your research project (P1)

Another participant reflected that leadership was not a strong focus of the programme, recalling that it was addressed mainly in relation to teamwork and organisational culture rather than developing a personal leadership identity:

I think the fact that maybe I can't fully remember as well might speak a little bit [...] I think just in the last two sessions, I'd say being a leader kind of came out, but it was more – the second to last session we had was about teams and it was more just kind of how we work within a team, so less about the leadership side and this was more about how we can kind of lead a culture in an organisation, or change a culture rather than who we want to be as a leader (P4)

From a facilitator perspective, how best to frame leadership in an introductory research programme was an ongoing concern. Some reflected on the challenge of making leadership feel relevant and meaningful to participants who are still establishing their research skills and professional identities as early career researchers. They talked about needing to more explicitly explore and explain leadership as a form of agency within power structures, drawing on participants own experiences, to help demonstrate how influence can be exercised even

without formal authority. To this end, there was a sense that relational leadership, rooted in collaboration, trust, and mutual support, should be foregrounded more and contrasted to more traditional, positional conceptions of leadership. This approach was viewed by some as a way of integrating psychological views of leadership and communities of practice with critical perspectives on the symbolic, cultural, and social dimensions of power, helping participants to view leadership as a socially situated process.

3.7.4.3 Engagement and impact (D3)

Lastly, participants were asked whether their awareness of how research shapes and is shaped by social, cultural, and environmental factors had changed during the programme (see Fig. 40).

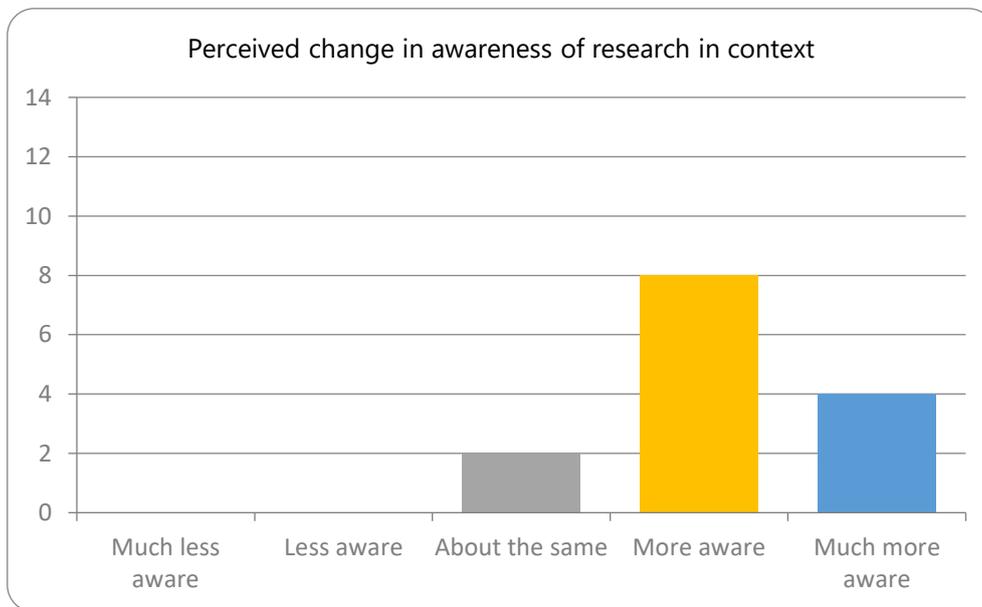


Figure 40

Most (8/14) reported being “more aware,” with a further 4 “much more aware,” while 2 reported “about the same.”

Relevant to the ‘public engagement’ of the ‘Engagement and Impact’ sub-domain, some interviewees also reflected on how the course had helped them understand the importance of PPI in research. One described how they had applied this knowledge successfully in their doctorate interview. Another valued the programme’s coverage of PPI for the chance to hear peers’ practical experiences and perspectives on related challenges:

We’ve touched on the public patient involvement and that was very useful. I’ve talked about in the coaching group - people’s practical experiences of public patient involvement, and like I talked about how I tried previously to get that going in our one of our services and it hadn’t gone down very well with like managers and kind of getting people’s perspectives on that (P1)

However, one participant felt the programme could have gone further on PPIE, particularly around engaging underrepresented communities, and suggested bringing in additional speakers given its relevance to their role:

It would have been useful to have a bit more of a deeper dive into – I know we did a little bit of work around PPIE, the massive issues engaging with underrepresented communities and maybe getting a couple of different speakers involved around that as well. But that’s mainly because it speaks to my own role (P5)

3.7.5 Comparison across outcome measures

The following results summarise the extent and nature of change reported by participants, highlighting both the breadth of positive outcomes and the areas where improvements were reported to be the most substantial.

Table 1 presents the distribution of responses across all survey measures. It shows the number of participants reporting a substantial positive change (e.g. “much more confident”), a positive change (“more confident”), no change (“about the same”), or a negative change. The final two columns summarise the proportion of participants reporting an overall positive change and those reporting a substantial positive change, showing both how widely change was reported as well as areas where change was experienced as more substantial.

Table 1

Measure	Substantial positive change (N)	Positive change (N)	No change (N)	Negative change (N)	Positive change (%)	Substantial positive change (%)
Access to a network to support research career	6	8	1	0	> 90%	>25%
Using different communication formats and media	6	8	1	0	> 90%	>25%
Identifying development needs	5	9	1	0	> 90%	>25%
Building and using networks	5	9	1	0	> 90%	>25%
Building collaborative relationships	5	9	1	0	> 90%	>25%
Communicating ideas to different audiences	5	9	1	0	> 90%	>25%
Motivation and enthusiasm	4	11	1	0	> 90%	15–25%
Critically reflecting on role and value of leadership	2	11	1	0	> 90%	<15%
Self-reflection	2	13	1	0	> 90%	<15%
Engaging others and demonstrating leadership	1	12	0	1	> 90%	<15%
Working effectively in a team	5	8	2	0	80–90%	>25%
Ability to contribute to research	5	9	2	0	80–90%	>25%
Awareness of research in context	4	8	2	0	80–90%	>25%
Career planning	3	10	2	0	80–90%	15–25%
Feeling part of a learning community	3	10	2	0	80–90%	15–25%
Curiosity and openness	3	11	1	1	80–90%	15–25%
Asking challenging questions	3	11	2	0	80–90%	15–25%
Identifying research sources	3	10	3	0	80–90%	15–25%
Understanding principles of ethical research	2	11	3	0	80–90%	<15%
Evaluating components of successful research	4	8	4	0	<80%	15–25%
Using Vitae RDF to support development planning	3	8	4	0	<80%	15–25%
Develop a research question	3	8	5	0	<80%	15–25%
Applying for development opportunities	2	9	4	0	<80%	<15%
Awareness of funding opportunities	1	9	5	0	<80%	<15%
Critically evaluating research findings	1	11	4	0	<80%	<15%

Table 1 presents the distribution of responses across all survey measures. It shows the number of participants reporting a substantial positive change (e.g. “much more confident”), a positive change (“more confident”), no change (“about the same”), or a negative change. The final two columns summarise the proportion of participants reporting an overall positive change and those reporting a substantial positive change, showing both how widely change was reported as well as areas where change was experienced as more substantial.

More than 90% of participants reported positive change in relation to self-reflection, motivation and enthusiasm, identifying development needs, and a cluster of measures relating to networking, collaboration and communication. High levels of positive change were also evident in reflecting on and demonstrating leadership.

Between 80% and 90% of participants reported increases in measures related to curiosity and openness, confidence in asking questions and contributing to research, career planning, team working, being part of a learning community, awareness of the social and environmental context of research, and confidence in understanding governance and ethics and identifying research sources.

In a number of measures, fewer than 80% of participants reported positive change, making these comparatively weaker outcomes. These included confidence in evaluating research findings and components of successful research, developing a research question from a practice-based problem, using the Vitae RDF, applying for and awareness of funding and development opportunities.

Considering just the proportion of participants who reported a substantial positive change (i.e. feeling much more confident), a slightly different pattern emerged. The highest levels of substantial change (around 40%) were reported for access to networks and for using different communication formats. Strong results were also evident across a cluster of other networking and collaboration measures, as well as in relation to confidence in contributing to research and identifying development needs, where around one in three participants reported a substantial change.

A second tier of measures showed moderate levels of substantial change (15–25%), including motivation and enthusiasm, evaluating the components of successful research, career planning, feeling part of a learning community, using the Vitae RDF, curiosity and openness, confidence in asking questions, identifying research sources, and developing a research question from a practice-based problem.

The lowest levels of substantial change (<15%) were observed in confidence to critically reflect on the nature and importance of leadership, in engaging others and demonstrating leadership, and in understanding ethics and governance. Similarly low levels were reported for self-reflection, applying for and awareness of funding and development opportunities, and evaluating research findings.

In addition, all participants reported positive change in developing a sense of identity as a researcher and in seeing themselves as someone who could lead or influence research. Around three-quarters also expressed intentions to continue engaging in research-related training and development. These outcomes, however, are not directly comparable with the other measures, as they were assessed using different scales.

3.8 Contextual factors

The evaluation also considered a set of contextual factors that shaped participants' capacity to engage with the programme ranging from the technology to the structure and dynamics of the delivery team.

3.8.1 Technology

Access to a laptop or PC with a reliable internet connection was an essential precondition for participation, with participants needing to use a range of online platforms to take part in the course including MS Teams, the University of Liverpool's (UoL) virtual learning environment, Canvas, and the collaborative whiteboard tool, Miro.

In the post-session feedback surveys, participants were asked to report any technical issues. Table 2 summarises the frequency and nature of these issues.

Table 2 Technical issues reported by participants

Session	Respondents reporting technical issues (n/total)	Type of issue (n)	Illustrative comment/notes
Induction	5/11	Internet connectivity (1) Computer not working with Teams (1) UoL log-ins (3) Miro log-in (1)	<i>"Sound and video frequently froze [...] wouldn't connect to Miro for 20 mins [...] used chat function to send messages"</i> <i>"Used my phone [...] but the text was too small to read"</i> <i>"Confusion around which ID to use"</i> <i>"Liverpool Life" link not working and redirected to complete UoL registration. Difficulties downloading UoL app onto the computer.</i> <i>Delay in receiving UoL username and then "follow[ing] the wrong link" to the log-in page.</i>
Workshop 1	5/12	Internet connectivity (1) Computer (1) Miro (2) Teams (1)	<i>Some lagging in connection at times</i> <i>Miro is a bit clunky</i> <i>No access to the chat on teams</i>
Workshop 2	3/12	Videos not working on work laptop (1) Computer updates (1) Camera issue (1) Feedback issues (facilitator)	<i>"My work laptop won't let me watch some of the videos and I have to search for the majority of them on my phone."</i> <i>"Getting my home computer updated and ready took quite some time but hopefully this will be easier for the next sessions."</i> <i>"Getting the camera to stay on initially. Changing browser helped but camera still turned off a couple of times."</i>

			<i>Had to go on mute.</i>
Workshop 3	1/12	Teams breakout rooms (1)	<i>Got stuck in a breakout room but signed out and back in again</i>
Workshop 4	1/9	Teams breakout rooms (1)	<i>Stuck in breakout room</i>

Technical issues were most common in the induction and first workshop, with problems decreasing in later sessions. Most issues during the induction related to the University of Liverpool log-in processes, but comments indicated that these were quickly resolved with support from UoL IT services and/or the delivery team. Facilitator feedback suggested that providing additional IT guidance or support in advance of the induction, such as ensuring UoL accounts are set up and apps are downloaded, could help to prevent these problems in future.

Comments suggest that technical issues were minimally disruptive overall, particularly when they were quickly addressed and resolved by the delivery team. For example, one participant whose video feed failed in the first workshop explained that facilitators reading out their chat comments meant that *"it did not stop me from feeling included."* Facilitators also emphasised the importance of dedicated technical support, especially for managing Miro, Teams, and breakout rooms in the early sessions (see also 3.8.5). Post-programme feedback echoed this, with one participant praising the value of having dedicated technical support and another noting the *"availability"* of staff to help with IT issues.

There was, however, some suggestion that a small number of technical issues persisted. For example, one participant on ongoing challenges with the breakout rooms in the post-programme feedback:

Rooms didn't always work when switching between and required relogging in sometimes which was a nuisance but some IT issues are to be expected in a completely virtual learning environment

While this participant felt the problems *"didn't impact the learning too much,"* others described issues that were more disruptive to engagement. These included the 20-minute delay in connecting to the Miro board during the induction, and one issue with videos that recurred over the course of the programme:

A lot of the time the YouTube videos don't work on my work laptop and I don't know if other people have had this, so I'll then end up just forwarding the e-mail and then I can watch it on my phone. Because I can access my emails that way. But they just adds a bit more time to it then, doesn't it? Just makes it a bit longer. If you can't just click the link (P2)

3.8.1.1 Technical confidence

Alongside these practical barriers, the delivery team recognised that confidence with the technology was also an important precondition for engagement. For this reason, participants were asked in the post-induction survey to rate their confidence in using the VLE. 9 of 11 respondents reported feeling "confident" in this regard, with one indicating that they were "very confident." Although tools such as Miro and Canvas were new to many participants, some highlighted their existing familiarity with, and confidence in, online learning:

I've done online learning before; I did a couple of modules with the Open University. So, I've done that before. So, the online side of it, I don't mind. And then obviously through COVID, everything went online, didn't it? So, I became quite adept at Teams meetings and things like that (P2)

I find it quite easy to engage with online content having done online courses and conferences in the past

However, two respondents noted feeling only "somewhat confident" with the technology following the induction, both commenting on the need to practice with and build their familiarity with these platforms. In this

regard, one facilitator observed that the activity of sharing photos during the induction provided a helpful opportunity to “*play with the tech.*” Another suggested that the induction could be improved by placing greater emphasis on building participants’ confidence in using the technology and introducing clearer guidance on how, and how frequently, the different tools would be used throughout the programme.

3.8.1.2 Canvas

In the initial sessions, specific feedback was collected on Canvas and Miro as platforms core to programme delivery, but likely to be less familiar to participants.

With regards to Canvas, aside from the UoL log-in issues reported during the induction (see Table 2), only a very small number of minor issues were identified (Table 3).

Table 3

Session	Respondents reporting Canvas issues (n/total)	Type of issue (n)
Induction	1/11	Confusion with Miro (1) Course dates not visible on calendar (1)
Workshop 1	1/12	Accessing pre-learning resources (1)
Workshop 2	0/12	N/A

After the induction, all six survey respondents agreed that they understood how to navigate and use Canvas, with one strongly agreeing³. Following the first session, 10 of 12 respondents reported feeling confident using Canvas, including five who felt “very confident,” although two reported still feeling only “somewhat confident.”

In the post-programme evaluation, three participants left positive comments on Canvas, with one reporting “no issues” and another noting that “*once I figured it out it was pretty intuitive to use and everything was in a place where I could easily find it.*”

3.8.1.3 Miro

Compared to Canvas, a slightly higher proportion of people reported issues with Miro (see Table 4).

Table 4

Session	Respondents reporting Miro issues (n/total)	Type of issue (n)
Induction	4/11	Loading /connectivity issues (2) Using the virtual post its (1) Extensive functionalities “overwhelming” (1) Confusion with Canvas (1)
Workshop 1	2/12	“Clunky” (1)
Workshop 2	0 /12	

³ A technical issue with the skip logic on this question so only 6 responses were collected

Most of these issues were resolved with support from the delivery team, and one respondent suggested that difficulties were largely a matter of practice. Facilitators also noted the importance of logging onto Miro in advance of sessions to help minimise technical difficulties and ensure participants could engage fully from the outset.

After the induction, 10 of 11 respondents agreed that they understood how to navigate and use Miro. One participant was initially uncertain, but explained that this was resolved with facilitator support, whilst another commented that they hoped the platform would *"become easier with use."* In addition, 9 of 11 respondents agreed that they understood how Miro would be used during the programme, with three strongly agreeing, although two expressed some ongoing uncertainty.

Following the first session, 5 of 12 respondents reported feeling confident using Miro and 2 reported feeling "very confident," however 5 still felt only "somewhat confident." Facilitators, however, observed that participants appeared to use the platform more confidently in practice, with very few issues arising. By the second session, feedback was positive, and one facilitator noted *"participants' ease of engagement with the Miro board"* in the fourth workshop. From a facilitator perspective, Miro was found to be particularly helpful in recording contributions from breakout rooms and identifying key themes for wider discussion.

Yet, one of the interviewees reported continued difficulties with Miro in terms of navigation and functionality:

I struggle with the Miro board. I can get that it's nice to see things together, but I find it really difficult to navigate, and if it's my laptop, you're just constantly zooming in and out, and sometimes the sticky notes work and you can type things. Sometimes they don't. So, I feel like I spend a lot of time faffing with that. So yeah, things like that, I think I would cut down. (P1)

Another participant reflected on initially struggling to learn how to use Miro and the ongoing challenge of using it to capture key points during small-group discussions (see 3.4.1):

The Miro board, which I'm not a fan of, because I just think it's just a bit weird. But I've adapted to it. I think it was more of a learning to navigate around it. I think we just felt a bit thrown in at the deep end [...] Some people are quicker at picking that stuff up than others – just split your screen in half while you're still chatting to your group while scribbling on a sticky post it, and then thinking about the different people in the room as well, like some people will just talk and talk and talk. And then, yeah, oh, we've got 30 seconds left. Oh, right. We've not put anything down yet. That's a common theme. (P6)

A similar comment on the initial difficulties of learning to use Miro was made in the post-programme evaluation, although the respondent noted that this was to be expected with any new technology and valued the on-hand technical support:

Miro board took a bit of getting used to as anything new does, but there is good support for assistance when required

Other comments from the post-programme evaluation described Miro as *"a bit clunky"* and another noted that they *"occasionally found Miro board difficult to use"*. One respondent highlighted ongoing challenges with Miro and suggested a different approach to using it across the duration of the course:

Miro always seemed to be very difficult to navigate and use. Maybe it would have been better to have a separate board for each session that could have been collated upon completion of the course.

In contrast, other participants expressed positive views of Miro. One noted that they “really enjoyed” using it and had “no issues,” while another commented that “Miro worked ok for me mostly.” A further participant was more effusive in their feedback:

I know some people has issues but personally I never had any problems and once used to the Miro board I felt it was a good tool.

For one interviewee, Miro was a particularly valuable pedagogical tool, making the course more interactive, accessible and engaging for people with different learning styles:

The creative sessions and doing the Miro board has been brilliant. I think that's an absolutely excellent piece of a piece of kit and I definitely would be recommending that to any of our trainers that we get doing training delivery on because we use the whiteboard and things. But obviously the Miro boards just something extra, just goes that extra mile, doesn't it? So, I think you know utilising all the tools that are available and the different ways that we can learn, they've got it down really well in this course, I think it's been really, really useful to have the different elements because obviously we're not all the same type of learner and it can be really bland if it's death by PowerPoint. (P7)

3.8.1.4 End-of-programme ratings of the VLE

At the end of the programme, participants were asked to rate their overall experience of using the virtual learning environment.

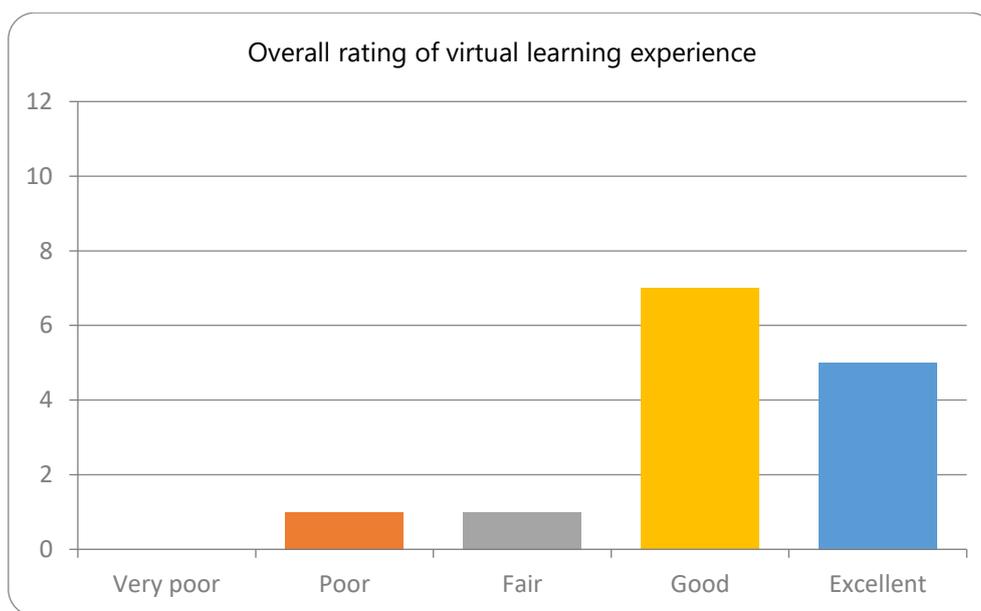


Figure 41

As shown in Fig. 41, most respondents rated their experience as “good” (7/14) or “excellent” (5/14), while only 2 selected “poor” or “fair,” linked to the issues with Miro described above.

3.8.2 Workspace

The InRes Programme Workbook states that another “essential” pre-condition for participating in the online sessions is a “dedicated, quiet and private space away from the work environment”.

In the post-session feedback surveys, participants were asked to report any workspace-related barriers to engagement. Table 5 summarises the frequency and nature of these reports and any related observations from facilitators.

Table 5 Workspace-related barriers to engagement reported by participants and observed by facilitators

Session	Respondents reporting workspace issues (n/total)	Type of issue (n)	Comments	Facilitators observations
Induction	1/11	Work environment (1)	<i>"Couldn't take time off work so had some work distractions behind me [...] would have been better to have a quieter environment"</i>	None
Workshop 1	3/12	Pets (2); Postman (1); Comfort (1)	<i>"Minor interruptions that were reduced as much as possible"</i>	Some participants joining from open work settings
Workshop 2	0/12	N/A	<i>"Much more comfortable than the last session which I had to do from work"</i>	None
Workshop 3	0/12		<i>"Session from home rather than work which was much better"</i>	None

Overall, reports of workspace issues were minimal and declined after the initial sessions. Facilitators noted that some participants joined the first workshop from open professional settings, and informal comments later in the programme suggested that a small number continued to attend some sessions from their workplace. One participant suggested that scheduling the two-hour induction session either early in the morning or late in the afternoon would make it easier to attend from home.

Joining online sessions from the workplace often meant limited privacy and greater vulnerability to distraction, with comments suggesting that those who joined later sessions from home found this environment more comfortable and conducive to emotional and behavioural engagement.

3.8.3 Professional demands

Work pressures were a key factor shaping participants' ability to engage with the programme. Comments highlighted how limited flexibility within some roles restricted when and where participants could engage, leaving them to navigate competing demands that undermined their focus and participation. One participant reflected that whilst the online format meant that those in less flexible roles could still access sessions from work if needed, this also risked increasing distraction and reducing engagement:

I think it's made it accessible for people who are don't have as much flexibility in the work as I do so, people who like having to snatch a few hours but then I think that also has meant that people have not maybe engaged with it as much because they've been at work and they've been trying to do other things and they've been distracted (P9)

The same participant observed that it was easier to "protect time" for face-to-face workshops, as attending required being "physically offsite." Similarly, another participant noted that certain roles made it difficult to fully disengage from work during the online sessions

I know that some people will probably find that a bit of a nightmare and they won't have a choice but to check [emails] because of whatever duties that they've got going in the background [...] there's a few people

I've got to answer to, but if work doesn't get done, it's not going to negatively affect any of my colleagues (P5)

In the post-programme feedback, one participant indicated that balancing the course time commitments with their professional responsibilities was challenging:

Full days are difficult to get out of work and stay concentrated on

Another added:

It is a big commitment and I did struggle to keep up with the work at times

One interviewee also reflected that role flexibility influenced both when participants engaged with the pre-learning and how much time they were able to dedicate to it (see 3.3.1):

I think I'm quite lucky in comparison to some of my other course mates [...] my role gives me a bit of time, like I get quite a lot of freedom in terms of being able to take a couple of hours out of my day to do the pre-learning, whereas I think some people because of clinical capacity and stuff were having to kind of squeeze it in just before the core session in the morning or something like that, or didn't have a chance to engage with it at all. Generally, I found it quite easy to get sorted (P5)

Similarly, other participants noted that although workload pressures sometimes limited the time available for pre-learning, greater role flexibility gave them more agency in deciding when to complete the work:

So, I'm really lucky in the fact that that I'm in the position that I'm sort of free to sort my diary out and work quite freely with my own time. I probably haven't had as much time as I should have just because of demands from work, but I've been lucky in the fact that if I needed to look at, for instance, looking at the pre-reading, I've managed to just block off my diary and do the time, probably not as much time as I should have, but definitely I haven't had any challenges with utilising the time (P7)

I've done everything, all the tasks apart from the additional reading bit. I'm lucky that I work 4 long days so I do normally have an hour spare in the day where I might get time to do non-clinical activities so I can squeeze it in and then I have been allocated the day off and I start work at half seven, so I've always got 2 1/2 hours before the session to get stuff done if need be. There was only one of the very first sessions where I found it difficult to finish it all in time (P8)

My current job is quite flexible, so it tends to be depending on how much workload I've got. It comes in like peaks and troughs, so if I've got a bit of a lull where I haven't got any new work and all the rest of my work is done, I will take a day [...] I never know whether like tomorrow I might be inundated with new work, it's kind of like being on duty every day, so sometimes there might be nothing, and other times you might get a request for a load of new stuff [...] So I like to give myself like 2 weeks. (P6)

3.8.4 Accessibility

Notwithstanding some challenges, many participants viewed the online format as an important enabler of participation in the programme, particularly by reducing the practical barriers of travel and commuting. As one person explained:

I would have probably have struggled with transporting myself (P3)

Others similarly noted:

It's helpful because obviously we're quite a widespread group, aren't we? So where would be your central point to hold the sessions? And then somebody's going to have to have a long drive in, aren't they? (P2)

Everybody is so busy in their jobs, I think online is sometimes more beneficial because you've not got the travel time where you would hold a course [...] To cover the northwest, it's never going to suit everybody, is it, if it's face to face, so I think (P7)

[It] fit in really well for me at a minute with my work-life balance and knowing I could be here all day at home and do the course (P8)

Some also highlighted how online delivery reduced the stress and effort of travel:

Having something online is great because it makes it so accessible you've not got all the stress of travelling and things like that. So, I think there's far more benefits to doing it online than there are downsides [...] And I'm really grateful for the fact that it's an online thing because traveling somewhere and things like that, it does add a lot of stress and angst to the whole thing (P2)

This convenience was not only about logistics, but also about conserving energy (see also 3.2.2):

I had a real problem with exhaustion for a period [...] I've probably got over that now, but if you had asked me to drive to Liverpool to go to a university, to sit with a group of people for, six hours, seven hours, whatever it is, then I'd be totally exhausted. When you're at home, when you're on breaks, you can go upstairs. You can relax [...] When it's 4:00, you can then go (P10)

For another, being online was a more accessible way to engage in the course due to social anxiety, while another reflected that 'being online has helped me personally.' Similarly, a participant noted that online learning suited their introverted nature, enabling them to engage from the comfort of home:

I do like to be at home when I'm learning. I again being introverted. I think that having my own space and just being in my space with everyone there but on the screen, I think it works [...] I do like the comfort of being online

However, for one participant, technical issues and the discomfort of working online outweighed its practical advantages:

You see yourself in the corner, you're like, oh, I look horrible [...] you can hide your camera, but what if I freeze? If I'm going to freeze, I want to know so I can turn my camera off [...] Yeah, I think that's probably something that I've learned about myself, is I'd much prefer face to face. There has been benefits to this as in no travel, which is nice [...] But it's hard to look at the screen all day. I hate like being on camera and it freezes and stuff (P1)

3.8.5 Delivery team structure and dynamics

Amongst the wider contextual factors influencing engagement, the expertise, structure and dynamics of the delivery team, including its size, consistency, and composition, were considered in terms of how they may have helped or hindered programme delivery.

3.8.5.1 Adapting to online delivery

Whilst the delivery team reported feeling sufficiently prepared in advance of the first session, with one facilitator surprised at how smoothly it ran, some described initial nervousness about online delivery, particularly around managing IT issues. Confidence grew as the session progressed, with many describing a greater sense of ease and "flow" by the end of the first session. One facilitator also commented that the induction had offered "a good sense of the class, requirements, and ideas to enhance the student experience".

After the first workshop, facilitators emphasised the value of a virtual 'staff room' for staying connected, sharing real-time reflections, and discussing any adaptations needed as the session progressed. They noted that it worked best when these conversations were kept separate from participant activities, so that learners could concentrate without distraction. One participant echoed this view:

The only thing I would say is when you ask us to do a writing task to not continue talking, but again that's probably more of an issue for me and was an easy fix to mute my computer temporarily

Shared online platforms (e.g., Canvas, Miro) were also valued for keeping those not involved in a session informed and ensuring continuity across the programme.

Facilitators recognised that online delivery required different strategies to face-to-face work. They variously noted the difficulty of building social engagement and community, the need to "think on your feet" to respond to participants' needs as they emerged, and the importance of balancing on-the-spot changes with their potential knock-on effects for the running of the session. Some also reflected on the discomfort of waiting for responses when participants were initially silent, but described learning to leave longer pauses and becoming comfortable with silence as an important online facilitation skill. They also acknowledged that a tendency to include too much content often stemmed from an anxiety about maintaining engagement, but felt that fostering curiosity and inquiry by creating space for reflection was a more effective approach. Many also noted that it was harder to "read the room" online to gauge participants' emotional engagement, and suggested this needed to be taken into account when preparing and leading sessions.

To address some of these challenges, facilitators recommended several measures to strengthen preparation and delivery. These included careful scheduling to avoid the same facilitator leading back-to-back sessions, setting aside 30 minutes before each workshop for the team to meet, and agreeing online protocols in advance, such as using the staff room and modelling ground rules with participants. Some also highlighted the value of practice sessions or 'dummy runs' before the programme to build confidence and consistency with the flipped learning model, hone online facilitation and technical skills, and resolve any potential issues in advance.

3.8.5.2 Size, consistency and composition of the delivery team

Overall, facilitators felt that having a small, core team involved in most or all the online sessions brought clear benefits for both facilitators and participants. A consistent group was seen to enhance collaborative efficiency and agility by providing more opportunities to build relationships, develop trust, and foster a sense of community. This familiarity was understood to play an important role in creating a comfortable and welcoming environment to support participants' emotional and social engagement. Keeping the team consistent was also seen as a way of helping to maintain a clear and coherent 'golden thread' through the programme, ensuring delivery stayed closely aligned with the overall vision, aims, and objectives. Consistency also helped facilitators stay up to date with course developments and participant progress.

Within the core team, facilitators valued the mix of professional perspectives, but emphasised the need to align expertise with the programme's intended outcomes. They identified subject knowledge, online facilitation skills, and technical capabilities as essential, alongside experience of working with health and care professionals, practitioner and academic researchers. Clear roles and responsibilities in relation to the programme's aims were also seen as vital for effective delivery. Some facilitators also emphasised the importance of demographic and professional diversity in the team, considering factors such as gender, class, ethnicity, age, professional background, and research experience. A diverse team was seen as helping the content resonate with a broad

audience, challenge stereotypes, and offer inclusive role models for aspiring researchers from different backgrounds.

Whilst a small core team provided consistency, facilitators also stressed the value of involving guest speakers and one-off masterclasses to further enhance diversity and introduce new perspectives, keeping the experience fresh and re-energising the group. This diversity was also viewed as an important way of providing different 'entry points' into the course content. One facilitator suggested that guest speakers could contribute to the pre-learning materials with follow-up Q&As during the online session to create more opportunities for participants to take greater ownership of their learning.

Participants expressed mixed views on the size, consistency, and composition of the delivery team. For one interviewee, a consistent core group of facilitators helped the programme run smoothly and ensured technical issues were quickly resolved (see 3.8.1):

I like the idea that there's some continuity, which there is. There are some sort of mainstays that help guide the sessions and things like that [...] but I think the format that they've got at the moment where you do have your sort of mainstay facilitators throughout the course, but they don't necessarily lead the session. They're just kind of in the background, so they're there and I think that's helped things run a little bit smoother [...] if there's any sort of mess ups with the tech or anything like that they've been resolved pretty easily (P5)

They also reflected on the value of diversity within the delivery team, alongside the guest speakers, for bringing a mix of perspectives and teaching approaches that kept the programme engaging (see 3.6.2):

I do think different speakers just keeps it fresh, I think they've all been brilliant and the mixed delivery of some of the speakers and the different ways that they've engaged with us as a group has been quite refreshing as well. [...]. I think that's sort of mixed perspective from different people. I think the speakers have been great so far. Yeah, I think they've been brilliant. (P5)

A second participant made a similar observation, adding that the range of contributors reflected the breadth of research and enriched their learning experience:

I really think that the reason that it's been so successful and beneficial to me is the fact that we've got such diverse people coming in and doing the course sessions [...] I think having that mix and blend of different people coming from different aspects. I think it's really important and I think it's one of the benefits of this course. If it was the same people all the time I think you wouldn't get the same benefit out of it and the greater understanding of all the different aspects, you know, because research is so massive [...] so it would be a shame to change all those dynamics, because they're really beneficial for the for the course, especially for me, you know, seeing how other people and different careers coming in and doing some sessions has been really good... [...] it's just bringing in different values and bringing in different ways of teaching, isn't it? [...] So, I think that comes across with all the different dynamics of the people that you've had on the course doing the sessions. [...] I think it worked really well with the team that there is there (P7)

One participant simply noted, "I've enjoyed having different people, so don't think that's an issue whatsoever" (P1). Another participant emphasised that having a varied mix of facilitators increased the likelihood of sessions being led in ways that matched their preferred learning style. They explained that this balance of diversity and consistency helped them remain engaged even when a particular facilitator's style did not fully align with their own:

So, I think if there was a set group of facilitators and maybe they were the facilitators that the learning style didn't work with me, it just wouldn't have worked at all. So, I think with the diversity, even though there might be a facilitator that works differently to me, that's OK because I know that's not consistent, so I can still be like, I'll just try and engage for this one. Do what I can. Kind of work with that, but I know that there'll be other sessions where the facilitators are more linked to kind of how I work. So, I think the diversity of it was good. I liked how there were still familiar faces. It wasn't like every session there was different people. It was you met the kind of core staff. And they would just drop in whenever it was their turn. I quite liked how that was run (P4)

One participant, however, reflected that too much variation in facilitation style could be challenging. For them, a smaller and more consistent core group would have provided a greater sense of predictability and allowed them to feel better prepared for each session:

It was a little unbearable at times, I think. Not knowing how the facilitation's going to be because they are really varied in their style... If you're wanting to get the best out of yourself, you've got your own way of learning and everyone has their own preferences. I think perhaps, for me, perhaps less is more and I could get more comfortable with how the session's going to run, how it's going to be facilitated and have a bit more predictability about how that time's going to be used. Because it does sometimes feel a bit unknown. Who is it this week? The presentation and facilitation styles are really different... perhaps just a core group I would think would probably be more helpful because it would feel more predictable. Well, I would feel more prepared for how that session was going to be. Sometimes it can feel a bit I'm going in a bit blind as to the level of energy and contribution that is going to be needed (P6)

Another participant valued the variety of facilitators, but stressed the importance of balancing subject expertise with the ability to convey knowledge at the right level for the group:

It's quite nice having a different face in there [...] getting that balance between somebody who's got the background knowledge themselves, but being able to convey it in a way that's appropriate to the level of the students who are on the course and it's kind of a little bit peaks and troughs like you'll get some that you feel are really good at that level and then others that are just a bit like 'no idea what you're talking about' (P9)

On a slightly different note, one interviewee welcomed the professional diversity of the delivery team. While they did not see it as essential, they felt it was valuable to have someone from their own professional background, as this made it easier to relate to facilitators' examples and experiences:

I appreciate it having different people. You have different expertise... [...] I've got representation [in professional background on the delivery team] ... but if they're in your profession, it doesn't really matter, does it? [...] although it's just nice to have someone to relate to when Jane's talking about her research and I understand it. (P8)

Another simply commented that professional diversity within the delivery team "doesn't really matter to me personally too much" (P1).

Only two interviewees commented on the ethnic diversity of the delivery team. One noted that "the diversity is probably lacking, isn't it, in the facilitators team" (P2), while another reflected that not initially noticing this prompted deeper consideration of representation and privilege. They acknowledged that others might have

sought greater representation and suggested that hearing directly from researchers of different ethnic background could provide valuable insight:

I think it's difficult coming from a white woman to be able to - that I didn't notice, that I didn't feel any kind of issues with that [diversity] because I felt represented. But probably from someone who is from a different ethnic background, they may have felt like it would be nice to have some believe - actually now thinking about it, it's really nice to hear some diverse perspectives from ethnic minorities working in research. How does that work for them? We were shown videos at the start, actually, of women, especially some from ethnic minorities, who migrated over to the UK at a later point in their life and the difficulties they faced, but I think it'd be really nice to have those critical perspectives from different people. And I think it does just show your privilege when that wasn't something I was thinking of at the time, but maybe if I was a different ethnic background or a different race, I probably would have thought it would be nice to have a representation of me in the sessions (P4)

3.8.5.3 Supporting trans-professional working

Some facilitators also reflected on the need for more opportunities to get to know one another, build trust, and develop mutual understanding before the programme began as a way of further strengthening collaborative efficiency and agility within the team.

Making time to share and discuss different professional values, practices, language, and priorities was seen as important for surfacing differences and building connections across diverse disciplinary perspectives, ultimately contributing to a more coherent and integrated experience for participants. In particular, some facilitators highlighted the value of exploring varied perspectives on research, pedagogy, and facilitation, from how the facilitator-participant relationship is understood to approaches for managing power dynamics and embedding criticality in delivery. These discussions were considered a vital part of clarifying perceptions of each facilitator's role and how these relate to the programme's overall purpose and direction. Strong leadership was seen as essential for creating a safe, open environment for sharing different viewpoints and guiding the ongoing design and delivery of the programme.

Occasional face-to-face meetings were also considered valuable for strengthening collaboration, whilst regular planning meetings involving all facilitators, along with mid- and end-of-session reviews, were felt to help keep the programme responsive to emerging needs and support ongoing learning within the team.

3.9 Limitations

As a small-scale pilot, the evaluation was not designed to produce generalisable findings. The survey data provides useful indications of patterns across participants, but the small cohort size means that percentages can exaggerate change or variation. Differences in the extent of change across outcome measures may reflect the responses of only one or two individuals.

Reported outcomes are also based on a single retrospective self-perception change score, which does not allow for more detailed measurement of change over time, carries a risk of recall bias, and, whilst it avoids response-shift bias, it remains limited in scope. All measures are also subject to social desirability bias.

Not all participants completed the interim surveys, and although completion of the post-programme outcomes evaluation was almost universal, two participants did not complete it. Response rates to the post-session surveys also declined by session 4, suggesting some evaluation fatigue. These gaps reduce the completeness of the dataset and may have influenced the balance of perspectives captured.

In addition, whilst the Canvas platform provided usage statistics, analysis of this data was outside the scope of this evaluation.

Notwithstanding these limitations, the evaluation offers insights to guide future iterations of InRes and to inform similar online practitioner researcher development programmes.

4 Discussion

The discussion is structured around the overarching evaluation questions, using the Online Engagement Framework to examine how different dimensions of engagement were fostered, challenged, or constrained during the pilot. For each dimension, the analysis considers both participant and facilitator perspectives, highlighting what supported engagement, where barriers were encountered, and what these findings suggest about the strengths and limitations of the programme's design and delivery. This is followed by a consideration of wider contextual factors that shaped participants' experiences and an analysis of outcomes in relation to the Vitae RDF. Taken together, the discussion explores the effectiveness of InRes in meeting its intended aims as well as the implications for strengthening future iterations of the programme. These insights are synthesised in a revised theory of change, which reflects how the programme's mechanisms supported engagement, the outcomes achieved, and the contextual factors shaping delivery (see Appendix B).

4.1 To what extent did the InRes programme's design and delivery foster participant engagement?

This part of the discussion addresses the overarching evaluation question: to what extent did the InRes programme's design and delivery foster participant engagement organised around the five dimensions of the Online Engagement Framework. For each dimension, the discussion explores how the programme supported engagement, the challenges or limitations identified, and what these findings reveal about the strengths and areas for improvement in the pilot's design and delivery.

4.1.1 Emotional engagement

4.1.1.1 *Feeling safe and supported*

The findings suggest that the InRes programme was largely successful in fostering participants' emotional engagement by quickly establishing a psychologically safe environment in which they felt supported to participate.

Participants' early confidence in asking questions and taking part in small-group discussions (see 4.1.3.1) are indicators of an emerging sense of psychological safety, whilst the data showed that confidence to contribute in whole-group discussions developed more gradually (see 4.1.3.2), suggesting that larger group contexts required a stronger sense of safety before participants felt able to speak. This gradual increase in confidence to take part in whole-group discussions suggests that psychological safety was progressively reinforced through repeated interactions. Another indication that this sense of safety strengthened over time was that, by the third workshop, many participants felt able to open up and be vulnerable, while others noted that later in the programme, they felt safe to begin exploring new ideas and perspectives. This process points to the way initial feelings of safety provided the foundation for a "brave space" that encouraged participants to take greater interpersonal and intellectual risks. For healthcare professionals, this was understood to be particularly significant, as showing vulnerability often sits uneasily with their professional identity.

A number of factors were seen to play a role in fostering this sense of safety, with supportive and encouraging facilitation particularly important in creating the conditions in which trust could develop. Strategies that supported social engagement by enabling people to get to know each other were likely to have been especially important in this regard. The interrelationship between social and emotional engagement in fostering a sense of safety was most clearly illustrated in the context of the smaller coaching groups. Under the facilitation of an experienced coach, several participants described how the coaching groups set up a reciprocal dynamic in which social connection fostered feelings of safety, and that sense of safety in turn encouraged more openness and sharing, which deepened these social bonds. In this way, participants are understood as co-creators of a safe and supportive environment.

Creative methods, such as using 'alter-egos' (e.g. puppets) may also have offered some participants a 'safe' way of showing vulnerability, making social connections and experimenting with new perspectives, although for some they risked undermining safety by triggering negative emotions, particularly if the activity was felt to be too personal. Indeed, this finding points to the importance of building a sufficient level of psychological safety before embarking on some of these approaches as well as to ensure activities are sensitively designed. The MBTI exercise seemed to offer a way of supporting psychological safety by helping people get to know each other and start to share their thoughts, experiences and vulnerabilities in a way that felt constructive rather than intrusive.

Knowing who to contact with questions or concerns, along with reports that the early workshops met individual learning needs, is also likely to have contributed to participants' sense of psychological safety. However, one concern about a delay in releasing pre-learning materials suggests that even minor logistical issues can undermine this sense of support.

In addition, the online format itself helped create a supportive and safe environment for some by allowing them to participate from a familiar setting and use alternative ways of interacting, such as turning off the camera or contributing via the chat function, which, for some, helped them to reduce a sense of social anxiety. However, for those who joined some of the sessions from a workplace setting, the lack of a confidential and private space is likely to have negatively affected their sense of psychological safety in contributing to the workshop. This finding suggests that fostering psychological safety requires attention not just to facilitation and activity design, but also to the wider conditions in which participants take part.

Psychological safety was also reinforced when participants themselves created space for others to contribute, pointing to the way in which peer behaviours play an important role in co-creating safe spaces alongside the facilitators.

Overall, the design and delivery of InRes appears to have been largely successful in fostering participant engagement, particularly by establishing and sustaining psychological safety as a foundation for emotional and social engagement.

4.1.1.2 Energy and motivation

The evaluation highlights that managing energy levels was a recurring challenge across the initial workshops, with participants and facilitators often reporting tiredness in the afternoons. These fluctuations in energy can be seen as a key aspect of emotional engagement, shaping participants' ability to sustain motivation, interest and behavioural engagement. Interactive and creative activities, including those that involved time outdoors, were consistently valued for their role in re-energising participants. Whilst most respondents felt the overall pace and timing of activities were appropriate, the findings suggest that sequencing a diverse range of activities and incorporating sufficient screen breaks are important strategies for mitigating fatigue and sustaining concentration (see also 4.1.2.2).

Issues of fatigue did not, however, appear to undermine participants' overall motivation or positive emotional engagement with the programme. Across the early sessions, participants described strong feelings of enjoyment, anticipation, and satisfaction. Perceiving the content as relevant to their work and aspirations, stimulating and stimulated by cognitive engagement connecting new learning with their own contexts, was an important factor in sparking motivation and commitment that supported behavioural engagement (see 4.1.5.2).

Full-day sessions were seen to support immersion and focus, whereas half-day formats may ease fatigue but risk reducing that depth of engagement. The evidence indicates that participants' motivation and affective commitment helps them sustain engagement even during demanding sessions, as long as the design is sufficiently responsive to their energy levels.

By the end of the programme, participants' feedback reflected a strongly positive affective response, with the large majority rating the experience as excellent or good. Expressions of gratitude and appreciation indicate that the programme met participants' learning needs and generated enthusiasm.

Overall, the programme was largely successful in fostering emotional engagement by creating a supportive and motivating environment, though some areas could be refined to sustain energy for all participants.

4.1.2 Behavioural engagement

4.1.2.1 Pre-learning

Engagement with the pre-learning materials provided an important indicator of behavioural engagement, as timely preparation was regarded as a prerequisite for meaningful participation in the workshops. The uneven pattern of completion across the early sessions suggests that while participants became more accustomed to the flipped learning model, sustaining this behaviour over time was more challenging.

Several factors influenced participants' engagement in the pre-learning work. Timing was particularly significant, with earlier release of the materials widely seen as a way to promote better time management and more sustained engagement. Workload pressures and personal responsibilities also constrained the timing and time available for pre-learning, highlighting the broader contextual challenges participants faced in balancing professional, personal, and programme commitments (see 4.2.3). Despite this, most participants reported finding the workload manageable.

Patterns of engagement with the materials reflected different learning preferences. Some participants completed the work well in advance to allow time for reflection, whilst others reviewed it shortly before the session, in some cases due to time pressures. Facilitators noted that this latter approach limited opportunities for deeper engagement, but also acknowledged that flexibility in when participants engaged with the materials made the model more accessible to diverse learners. These insights prompted reflection on how rigidly the timing of engagement in pre-learning should be enforced, and whether alternative structures, such as providing some tasks to be completed post-session, might better accommodate different working styles.

The volume, complexity, and format of pre-learning materials were also barriers to behavioural engagement, especially early in the programme. The reading load for Workshop 1 was seen by many as particularly demanding, which is likely to have contributed to lower completion rates. The complexity of the content also influenced patterns of engagement, with the materials for Workshop 4 viewed as particularly demanding, which may have contributed to the decline in pre-learning completion at that stage.

Some participants reported that working through the reading materials required significant cognitive effort that led some to more superficial engagement, particularly for those with limited recent experience of academic study. By contrast, shorter videos, reflective exercises, and practical "do" activities were described as more accessible and motivating. These findings highlight the need to balance volume and challenge with a mix of formats that can accommodate different learning styles, experience and levels of confidence. These findings may also have contributed to the relatively modest engagement with the further reading and supplementary resources.

Facilitators suggested that a more differentiated approach to pre-learning could help address these challenges, such as providing clearer explanations and examples for less experienced participants, optional advanced readings for those seeking greater depth, and reflective prompts to support active processing. They also noted the value of introducing pre-learning gradually, as front-loading too much material risked overwhelming participants, undermining confidence, and discouraging engagement.

The findings also suggest that the perceived relevance of the pre-learning to the online workshop was an important, though partial, driver of behavioural engagement. Although the majority of participants felt there was a clear connection, with the materials helping them to prepare effectively for these sessions, feedback indicated that these connections were not always explicit in terms of how the session then deepened cognitive engagement with the content. Where this alignment was lacking, some participants reported reduced motivation to engage fully with the flipped learning model. A similar pattern was evident with the further reading and supplementary resources, since without clearer incentives or stronger links to workshop activities, participants tended to treat them as optional rather than integral to their learning.

The evaluation also points to the role of accountability in supporting behavioural engagement with pre-learning. Participants engaged more consistently when tasks, such as submitting the MBTI questionnaire in advance, were required for the workshop to function effectively, suggesting that embedding essential preparatory activities can encourage higher levels of engagement. Facilitators considered introducing other low-burden requirements, such as short reflective submissions to use in the workshops, but also cautioned that these could create barriers for busy health and care professionals. They therefore emphasised the need to design workshops so that those who did not engage with the pre-learning could still benefit, whilst ensuring that those who had prepared more fully were able to progress. At the same time, some participants saw value in this model as a way of encouraging self-directed learning, suggesting that sustaining engagement also depends on fostering participants' agency and responsibility as adult learners.

Overall, the programme's design and delivery supported behavioural engagement with pre-learning to a moderate extent. Engagement was strongest when tasks were necessary for participation, content was clearly relevant to the workshop, formats were accessible, the workload was manageable, and materials were released in time to support different learning preferences and contexts.

4.1.2.2 Online session participation

Facilitators reported strong behavioural engagement across the induction and first two workshops, noting full attendance, timely starts, and active completion of individual tasks. Furthermore, the absence of attrition over the course of the programme demonstrated a high level of sustained behavioural commitment. Concerns about behavioural engagement centred on limited verbal contributions in whole-group discussions (see 4.1.3.2), though this was not necessarily taken as a sign of disengagement.

Adherence to the online ground rules was also consistently positive, with participants recognising the value of clear expectations in this regard. Facilitators' reminders to minimise distractions, such as email, were also reported to legitimise participants' focus and reduce guilt about setting aside work tasks.

The design of the workshops played a central role in enabling behavioural engagement. Participants consistently valued opportunities for active learning through dialogue, group work, and interactive tasks, contrasting this favourably with more passive webinar formats. The diversity of activities was especially important, with participants reporting that variety kept sessions stimulating and supported different learning preferences. However, feedback also highlighted the limitations of certain mechanisms, such as the red/green cards, repeated icebreakers, and an over-reliance on discussion groups, which were less effective in sustaining participation and interest for some participants.

Overall, behavioural engagement in the programme was strong and sustained, supported by varied activities that promoted active learning, maintained interest, and helped ensure inclusive participation.

4.1.2.3 *Creative methods*

The use of creative methods was a distinctive feature of the programme and was largely successful in supporting behavioural engagement through active participation. Most participants reported that these approaches enhanced their learning and development, with feedback indicating that they also made sessions more enjoyable and energising, thereby strengthening emotional engagement and sustaining participation.

At the same time, not all participants found these methods equally comfortable or relevant. Some reported feeling uncomfortable and/or uncertain about the purpose of some of the creative activities which limited their behavioural and cognitive engagement. These reactions suggest that while creativity can be a powerful driver of engagement, it can also lead to disengagement if the rationale is unclear or if activities feel disconnected from participants' learning aims. However, the fact that some participants eventually recognised their value suggests that initial resistance can sometimes give way to appreciation once the purpose and relevance of creative methods are understood.

Overall, creative methods proved highly effective in fostering emotional and behavioural engagement, but their impact, for some, depended on clear purpose and framing.

4.1.2.4 *Assignments*

Assignment completion also provided a clear indicator of behavioural engagement, with the majority of participants finding them useful for their learning and development. The assignments were variously valued as an opportunity to consolidate and extend learning, push beyond their comfort zones, and encourage critical thinking, whilst others noted that the creative and personal focus made them feel more accessible. Thus, overall, the assignments helped sustain engagement by balancing challenge with accessibility. The two participants who did not complete the assignments does, however, signal a degree of disengagement for a very small minority of the cohort. One participant's comments suggests that the lack of accreditation might be a contributory factor in this regard, although formal recognition does not seem to have been a central driver of engagement overall.

4.1.3 Collaborative engagement

4.1.3.1 *Small group discussions*

Participants' reports of active contribution in the early workshops indicate that small-group discussions were effective in fostering collaborative engagement. Early survey data also showed growing confidence to participate in these discussions over the first three sessions. Together, these findings suggest that small groups provided supportive and inclusive spaces that encouraged interaction and built confidence to contribute. Participants consistently rated small-group work as useful and engaging, with many identifying it as the most valuable aspect of the workshops, particularly when supported by clear structure and guidance.

However, participants also highlighted practical challenges with small-group discussions. Feedback pointed to issues of time and timing, with some groups feeling cut short and others left with longer periods that were not always productive. These concerns partly reflected wider challenges in group dynamics, where uneven levels of preparation, openness, and willingness to engage limited the depth of discussion. The absence of facilitators in breakout rooms was also noted as a limitation, as conversations sometimes relied too heavily on a few individuals and missed opportunities for deeper, critical engagement without specialist input. Opinions varied on whether greater facilitator presence would enhance the quality of group work or risk inhibiting participation and undermining participants' ownership of learning. Nonetheless, there was broad agreement that more could be done to strengthen the cognitive dimension of collaborative engagement in these settings

Overall, small-group discussions played a vital role in sustaining collaborative engagement by providing an inclusive and participatory space for interaction. However, their effectiveness depended heavily on group

dynamics and individual preparation. These findings suggest that while small groups are a valuable vehicle for engagement in online programmes, variation in group composition, clearer framing of tasks and roles, as well as strategies to balance participant autonomy with facilitator support would help maximise their collaborative and cognitive potential.

4.1.3.2 Whole group discussions

Reports of participation in whole-group discussions suggest a more uneven picture of collaborative engagement than in small groups. Whilst many participants felt confident to contribute, this did not always translate into verbal participation, and facilitators often observed hesitancy in this regard. Feedback pointed to personal anxieties, lack of familiarity, and discomfort with large-group interaction as key factors in this reticence. Confidence to contribute to whole group discussions also increased gradually over the first three sessions, indicating that growing familiarity helped lower barriers to engagement.

The online format also appeared to enable and constrain participation in these discussions. On the one hand, some participants valued the chat function and Miro board as lower-pressure entry points into whole group discussions, broadening opportunities for collaborative engagement beyond verbal contributions. On the other hand, participants and facilitators noted that the dynamics of online discussions, such as judging when to talk or managing side conversations in the chat, could restrict the natural flow of conversation. Some facilitators also highlighted the need to integrate written contributions into discussions to ensure these forms of engagement were not marginalised. In this way, facilitation was central in shaping how whole-group discussions unfolded, with direct invitations to contribute, follow-up questions, and encouraging feedback from breakout groups (whether verbal or written) all helping to support collaborative engagement.

However, for some, disengagement from both whole-group and small-group discussions was triggered by an overreliance on this form of collaborative engagement, with practices such as going around the group to invite contributions sometimes feeling time-consuming. Discussions without expert input or clear structure were disengaging for some. When conversations lacked depth or direction, participants' motivation dropped and they became less willing to contribute, highlighting the need to balance collaborative engagement with cognitive challenge to sustain participation.

However, for some, disengagement from both whole-group and small-group discussions was triggered by an overreliance on this form of collaborative engagement. Practices such as going around the group to invite contributions could feel time-consuming, while unstructured discussions without expert input or sufficient depth reduced some participants' motivation and willingness to contribute, underscoring the need to balance collaborative engagement with adequate cognitive challenge to sustain participation.

Overall, whole-group discussions contributed to collaborative engagement by enabling peer-to-peer learning and exposure to different perspectives, but they were less consistently effective in supporting behavioural engagement compared to small-group work. The findings suggest that whole-group forums require careful design, with structured content, inclusive facilitation, and alternative modes of participation to ensure all voices can be heard. More broadly, they point to the importance of building strong social and emotional engagement as a foundation for fostering collaborative engagement in these settings. More broadly, these findings suggest that difficulties in whole-group discussions often reflected anxieties, lack of familiarity, or limited psychological safety, underlining the importance of strengthening social and emotional engagement as a foundation for effective collaborative engagement in these settings.

4.1.3.3 Coaching

Coaching was highly valued by most participants, creating a space for deeper forms of collaborative, social and emotional engagement. By the end of the programme, all but one participant agreed that they understood the

value and role of coaching in their professional development, with this connection established from early on in the programme. The vast majority of participants also reported that coaching had supported their development as aspiring researchers in a myriad of different ways. The sessions were experienced as protected spaces for reflection, where participants could explore professional and personal challenges, test ideas, and gain insights. Participants variously reported that the groups helped them build confidence, confront imposter syndrome, strengthen resilience, build self-awareness and bolster cognitive engagement with the course. Coaches also identified key themes across some of the groups including managing burnout, career uncertainty, and navigating professional hierarchies.

The coaching groups also played a vital role in building social engagement, which was reciprocally nurtured by fostering strong emotional engagement in an intimate, inclusive and supportive environment. Together, these dynamics created the conditions in which participants reported the strongest sense of belonging and community, with several participants expecting that the relationships formed would extend beyond the life of the programme.

There were, however, some isolated reservations, with some citing logistical challenges and others questioning the relevance of their coaching discussions, suggesting that additional organisational support and more detailed exploration of aims and expectations could enhance accessibility and maximise impact.

Overall, coaching emerged as one of the programme's most effective mechanisms for multi-dimensional engagement. It provided safe and supportive conditions for emotional openness, built confidence, encouraged reflection and cognitive growth, enabled peer learning and collaboration, and fostered networks that extended participants' personal and professional development as practitioner-researchers.

4.1.3.4 Mentoring

Mentoring was generally experienced as a valuable element of the programme, although levels of engagement and impact varied more widely than for coaching. By the second workshop, all but one participant understood the purpose of mentoring and felt confident in identifying a suitable mentor.

Whilst mentoring was clearly beneficial for many, with most participants reporting that it had supported their development, a notable minority remained uncertain about its value. This mixed picture points to the unevenness of experience within the cohort in terms of establishing and sustaining mentoring relationships.

When mentoring relationships were successfully established, participants reported a wide range of benefits. Mentors helped clarify career direction by supporting career planning and progression as well as opening up broader opportunities to connect with networks and current research projects. These experiences boosted participants' confidence and understanding of their potential as practitioner-researchers.

In contrast, a small number of participants indicated low levels of mentoring engagement variously due to mentor availability, unclear expectations and/or a lack of perceived relevance to their current work. Several interviewees reflected that they would have benefited from clearer guidance on the purpose of mentoring and structured frameworks to guide discussions.

The findings also indicate that relying on colleagues as mentors can be highly effective, as existing relationships provided trust, constructive challenge, and a platform for ongoing collaboration. However, this model also risks uneven access, as participants without suitable colleagues were more likely to struggle in sustaining a mentoring relationship.

Confidence in finding a mentor was mixed, with participants citing barriers such as limited time, uncertainty about who to approach, and lack of confidence in initiating conversations, suggesting a need for greater support in building the skills and capacity to seek out and sustain mentoring relationships.

Overall, mentoring provided significant developmental benefits where relationships were well-matched and clearly structured, but the unevenness of experience suggests scope for improvement. Whilst mentoring was an effective mechanism in supporting collaborative engagement, future iterations may need to provide stronger frameworks clarifying its purpose, earlier support in identifying suitable mentors, and more explicit guidance on how to initiate and sustain these relationships.

4.1.4 Social engagement

Social engagement appeared to build gradually over the course of the programme, with both participants and facilitators noting that early activities played an important role in laying the foundations for connection. Induction activities such as sharing photos, exchanging personal stories, and paired phone calls helped to establish initial rapport, whilst small-group discussions supported the development of these early social ties (see 4.1.3.1).

These results indicate that social and collaborative engagement were closely intertwined. Participants described how active contribution and openness in group work fostered stronger social connections, with coaching groups, in particular, created the conditions for deeper social connection and sense of community (see 4.1.3.3).

However, the online format limited the informal 'in-between' moments, such as coffee breaks, that initiate and strengthen social connections in face-to-face settings. Facilitators also observed that although virtual settings could sometimes foster greater intimacy, relationships generally took longer to develop. In this regard, there was strong support for incorporating face-to-face elements in future iterations, particularly in the early stages to accelerate trust-building and community formation. Mid-point gatherings were also suggested as a way of consolidating connections and sustain momentum, with an in-person celebration event also holding potential to help sustain the emerging social ties.

In response to the limited informal opportunities for social engagement, the delivery team trialled strategies such as creating a Canvas "common room" and encouraging the use of WhatsApp. However, these spaces saw very little use, with participants citing factors such as unclear purpose, limited existing relationships, and discomfort with unstructured exchanges. These findings suggests that the purpose of any informal social platform needs to be clearly framed, introduced early, and actively facilitated if they are to generate meaningful interaction. At the same time, additional online activity risks exacerbating time pressures and screen fatigue, which may limit uptake.

Even with these challenges, the findings indicate that the programme did foster a sense of community with the extended cohort for many participants, further evidenced by their desire to sustain connections beyond its lifetime as a source of ongoing peer support and networking. Others, however, reported limited opportunities to form lasting relationships or regarded community as peripheral to their learning and development.

In summary, the programme fostered meaningful social connections, particularly within the coaching groups, but the online format constrained the informal interactions that help to strengthen social engagement. Future iterations could enhance the sense of community by embedding more purposeful online social spaces alongside dedicated face-to-face elements.

4.1.5 Cognitive engagement

4.1.5.1 *Understanding programme aims*

For many, understanding of the programme's aims and their relationship to the content developed only gradually, with uncertainty most evident in the early stages. By the end of the programme, however, all participants reported a clear understanding of its overall purpose, indicating that the design and delivery were ultimately effective in supporting cognitive engagement. There was, nevertheless, slightly less certainty about how the content aligned with the Vitae RDF.

The findings suggest that it was not always clear how individual workshops or activities connected to the programme's overarching aims, with this lack of coherence sometimes undermining cognitive engagement by making it harder for participants to integrate ideas across sessions and see their relevance to their professional development (see 4.1.5.2).

The Vitae RDF was recognised as a helpful organising framework in this respect, but not always easy to navigate. Suggestions for clearer signposting at the outset, for example, through a simple roadmap, indicates a need for stronger guidance to help participants connect content across workshops and relate it more directly to the programme's overarching aims. At the same time, it was acknowledged that the design intentionally encouraged participants to take ownership of their learning by finding the connections for themselves and applying ideas to their individual context.

Overall, however, InRes enabled participants to develop a clear understanding of its aims and objectives, aligning programme content with a broader framework for researcher development, although more explicit guidance might help participants at all levels of prior experience to make sense of the programme's intent and support more meaningful engagement.

4.1.5.2 *Alignment to participant aims and expectations*

By the end of the programme, most participants judged the content to be relevant to their learning and development, with only a small minority offering more neutral responses. This suggests that InRes was largely successful in aligning content and delivery with participants' developmental needs.

In the early stages, some participants were unsure of the value of reflective activities focused on personal development, especially when these felt tangential to their expectations of developing 'hard' research skills. However, many participants also found these activities, particularly the MBTI exercises, insightful and motivating. Over time, a number of participants reported increasing clarity about how these activities related to their professional development, with several coming to recognise personal development and self-awareness as integral to becoming a researcher.

A minority, however, remained less convinced. Some wanted greater emphasis on research methods and critical appraisal and felt the content was pitched below the level they had anticipated. These divergent views, to some extent, reflected differences in prior research experience, with more experienced participants seeking deeper conceptual and critical challenge.

The issue of level was most evident in the research paradigms session, which some participants described as stimulating and highly relevant, while others found it daunting and difficult to connect with their stage of development. These contrasting experiences underline the challenge of pitching content for a mixed cohort. Crucially, the findings also illustrated the role of facilitation in sustaining engagement, with some participants who initially felt confused or uncomfortable reporting that effective support helped them to reframe the experience, identify gaps in their knowledge, and connect the material to their professional development. Participants consistently emphasised the value of guest speakers and real-world examples that helped to ground

abstract concepts, make them more accessible, and enhance both cognitive and emotional engagement, regardless of prior experience.

Facilitators observed that when participants perceived the content as relevant, they were more likely to grasp the programme's aims and apply learning to their own research journeys. They highlighted the need to make explicit how academic researcher skills ("head") and personal development ("heart") were intended to work together, and to clarify differing understandings of 'research' and 'research engagement'.

Overall, the evidence indicates that InRes was largely successful in fostering cognitive engagement through supporting participants to apply the programme's aims and content to their own developmental goals. However, differing expectations across the cohort suggest a need for clearer communication of the programme's aims, approach and level, with more explicit framing of how personal and academic development are interconnected to help ensure that participants consistently see the relevance of the programme to their own context.

4.1.5.3 Reflection

The findings indicate that reflection was a valued component of InRes, supporting learning, helping participants draw connections between sessions, developing ideas, and applying insights to their professional practice. In particular, the MBTI session was often described as a key moment where reflection supported cognitive engagement, prompting participants to reconsider self-perceptions, build greater self-awareness, and reframe their professional identities, with some linking these insights directly to new confidence and career decisions. This finding suggests that reflective tools such as MBTI stimulate multiple dimensions of engagement, not simply cognitive. At the same time, a small number of participants remained unsure about the purpose of certain reflective exercises, pointing to the need for clearer framing to maximise their relevance and impact.

Facilitators observed that dedicated time for reflection was central to sustaining cognitive engagement, emphasising that slowing the pace, limiting content, and creating opportunities for reflective dialogue and individual inquiry were effective in supporting deeper engagement with the material. One participant further suggested building in more structured reflective opportunities between workshops to aid consolidation and retention of learning.

Overall, reflection emerged as an effective strategy for supporting cognitive engagement, though the evidence suggests that explicit articulation of purpose and varied approaches would help ensure relevance for all participants.

Overall, reflection emerged as a key strategy for fostering cognitive engagement, particularly when the purpose of activities was clearly explained and their relevance to professional development was made explicit. The evidence suggests that using varied approaches and incorporating tools that combine self-insight with practical application, such as MBTI, can also strengthen their relevance and impact across the cohort.

4.1.5.4 Critical thinking

Although most participants felt that the early workshops provided sufficient opportunities for critical discussion, both contemporaneous and later reflections suggested a more mixed experience. At this stage, curiosity-driven inquiry methods and structured reflection supported some participants' critical thinking by encouraging them to explore new perspectives, question assumptions, and connect ideas to practice. For others, however, the purpose and relevance of these approaches to developing criticality as a researcher were less clear, with some indication that a few participants felt there were limited opportunities for critical debate. Facilitator feedback also expressed concern about the level of critical engagement during these early sessions.

Different understandings of criticality and its role in the programme appeared to contribute to these divergent responses. For some, critical thinking in the programme was supported primarily through self-reflection,

examining assumptions, professional identity, and sources of motivation. Others understood criticality as a more externally oriented process, such as appraising evidence or analysing research design. Later in the programme, some interviewees described moving from self-reflection towards more advanced forms of critical engagement, developing awareness of research paradigms and methods, and gaining confidence in applying critical thinking and writing skills to professional and research contexts. Others, however, felt the programme did not sufficiently extend their ability to analyse evidence or engage in debate, with some facilitators echoing these concerns.

Facilitators' reflections further underscored the multiplicity of meanings attached to criticality in the course. Approaches ranged from critical pedagogy to critical self-reflection and the critical appraisal of research evidence. Combining facilitators from academic research and learning and development backgrounds was viewed by some as valuable in integrating self-awareness with critical engagement, framing both as integral to the intertwined personal and professional development that the course aimed to foster. The involvement of experienced practitioner researchers was also seen as important for role-modelling critical skills in practice. Facilitators emphasised that developing criticality requires careful support, including clear explanations, a gradual introduction of ideas, and purposeful activities that enable participants to engage in deeper critical reflection and analysis.

=Overall, InRes supported more critical forms of cognitive engagement through varied routes, particularly in respect to critical self-reflection, and helped many participants build confidence in applying these skills within their professional contexts. At the same time, the evidence highlights limitations in how consistently the programme enabled critical engagement with course content or advanced participants' ability to appraise evidence and engage in debate. These findings suggest that future iterations would benefit from more explicit framing of the programme's approach to criticality, clarifying how critical reflection, appraisal, and inquiry connect to one another and to the overarching aims of the course.

4.1.6 Multi-dimensional engagement

Overall, the programme fostered engagement across all five dimensions, with particularly strong evidence in affective and collaborative areas, and more mixed results in behavioural, social, and cognitive aspects. Design choices that effectively supported engagement for most participants included supportive and inclusive facilitation, small-group formats, coaching, and interactive and creative activities. These created psychologically safe conditions, sustained motivation, and enabled inclusive participation and peer learning.

Behaviourally, engagement during early online sessions was strong, helped by varied opportunities for active learning, with the exception of collaborative engagement in whole-group discussions, which was less consistent. However, engagement in pre-learning proved more uneven variously due to time, timing, volume, complexity, and perceived relevance. Socially, the cohort developed some sense of community, especially via coaching, but the online format limited informal interactions and constrained social engagement. Cognitively, participants ultimately understood the aims of the pilot and found the content largely relevant, with structured reflection supporting deeper engagement. However, early uncertainty about the programme's aims and their relevance to participants' own development, varied expectations about its level, and limited opportunities for critical discussion reduced the extent of cognitive engagement for some.

Taken together, the pilot's design and delivery fostered strong engagement when participants could see clear connections between activities, the overall aims of the programme, and their own development as practitioner researchers. Engagement was weaker where these links were less obvious or when activities gave limited scope for expanding knowledge or developing critical thinking, and where collaborative dialogue was harder to sustain.

4.2 What wider factors enabled or hindered the effective delivery of the programme and participants' engagement?

This section considers the role of technology, workspace conditions, professional workload, accessibility, and the facilitation team in shaping programme delivery and participation, examining how these contextual factors both enabled and hindered engagement.

4.2.1 Technology

Whilst all participants had access to the requisite technology, a small number of technical issues and challenges with platform usability affected confidence and, for some, the quality of engagement, particularly in the early stages of the programme.

Technical problems were most common during the induction and first workshop, reflecting challenges with University of Liverpool log-in processes and unfamiliarity with new tools such as Miro. Importantly, these issues were generally resolved quickly with support from IT services or the delivery team and did not constitute major barriers to learning. Facilitators highlighted the importance of setting up accounts in advance and providing clear guidance on how platforms would be used to help mitigate these issues.

Overall, digital confidence was high and did not constitute a barrier to engagement. Induction activities helped build familiarity with the platforms, with Canvas widely regarded as intuitive and confidence remaining strong in using this throughout. In contrast, Miro elicited more mixed responses. Whilst many valued Miro supporting interactive learning, others found it difficult to navigate both early on and later into the programme, which, for some, limited confidence in using this platform. Lower end-of-programme ratings of the VLE were largely attributed to frustrations with Miro.

Overall, InRes was largely successful in supporting participants to engage with the online platforms by providing proactive technical support and guidance, as well as embedding induction activities that built familiarity and confidence. However, experiences with Miro illustrate the tension between its potential to enhance collaborative engagement and issues of usability, which for some constrained behavioural engagement. Future iterations would benefit from critically reflecting on these trade-offs when selecting digital tools.

4.2.2 Workspace

Workspace-related barriers were minimal and declined over the first sessions. However, joining from open professional settings limited privacy and increased distractions, constraining behavioural and emotional engagement for some participants. Those who later joined from home reported greater ease in sustaining focus, demonstrating that workspace conditions influenced participants' ability to fully engage.

4.2.3 Professional demands

Professional demands were a significant factor shaping engagement. Participants in less flexible roles sometimes joined sessions from work, which allowed access but also heightened distraction and reduced focus. There was some reflection that this time would have been easier to safeguard in face-to-face settings, where being physically offsite created clearer boundaries. Workload pressures also affected pre-learning, with role flexibility influencing when and how much time participants could dedicate to it. Overall, competing professional responsibilities limited the depth and consistency of engagement for some, underscoring the need for organisational support to protect time for fuller participation.

4.2.4 Accessibility

The online format was widely viewed as an enabler of participation by removing travel barriers, reducing stress, and making engagement more manageable alongside professional responsibilities. For some, it also enhanced

accessibility, where social anxiety or introversion made online engagement easier. Only one participant reported that technical issues and discomfort with online working outweighed these advantages, though many indicated a preference for a hybrid format to better support social and collaborative engagement.

4.2.5 Delivery team structure and dynamics

Facilitator reflections indicated that while initial nervousness about online delivery was common, confidence grew quickly, supported by an induction that allowed the team to get used to the tools. To this end, some facilitators highlighted the value of additional opportunities to practise and rehearse sessions and establish shared protocols for collaborative, online facilitation. As delivery progressed, the team also identified the need for a virtual 'staff room' to maintain real-time communication during workshops without disrupting the participant experience.

Overall, facilitators felt that working as a small, consistent core team enhanced efficiency and cohesion by fostering trust and continuity. This stability helped support affective and social engagement by creating familiarity and a sense of safety for participants. At the same time, both facilitators and participants recognised the value of diversity within the delivery team. Varied professional backgrounds, guest speakers, and different facilitation styles helped to keep the course engaging and inclusive, while also making it more accessible to different learning preferences. However, one participant noted that too much variation created unpredictability and limited their sense of preparedness. These findings suggest that facilitator consistency can strengthen behavioural and emotional engagement, but that diversity also enriches learning by broadening perspectives and providing multiple entry points into the content. In addition, whilst few people commented on the demographic diversity within the delivery team, a small number of comments suggested that greater ethnic diversity could enhance inclusivity and representation, particularly for participants from underrepresented backgrounds.

Given the team's varied professional backgrounds, some facilitators noted the importance of allowing time and space to strengthen trans-professional collaboration through building trust, exploring differences, and co-creating a shared vision for the course. Clarifying roles and responsibilities, and how these related to each other and to the programme's objectives, were also highlighted as an important part of this process in order to ensure coherent and effective delivery. Strong leadership and regular planning and review meetings were an essential part of supporting and sustaining this collaboration.

These insights highlight that effective delivery depends on individual facilitation skills together with investment in team development and diversity, underpinned by leadership that fosters collaboration, creates a safe and open environment for dialogue, and provides clear direction across the programme.

Overall, the evaluation indicates that wider contextual factors both enabled and hindered programme delivery and participant engagement. Reliable technology, proactive technical support, and a consistent core delivery team created stability and continuity, while diversity in professional backgrounds and facilitation styles helped keep the programme engaging and inclusive. At the same time, workspace distractions, professional pressures, and usability issues with Miro disrupted participation. The online format improved accessibility and reduced logistical barriers, but also limited opportunities for informal interaction. Effective delivery depended on strong leadership, clear roles, and regular planning that built confidence with online tools, alongside time and space to foster trust and collaboration across professional backgrounds.

4.3 To what extent did the programme achieve its principal aims and learning outcomes in developing participants' knowledge, skills, and confidence as practitioner researchers?

This section addresses the evaluation question of how far the programme achieved its aim to develop participants' knowledge, skills, and confidence as practitioner researchers. It reviews outcomes across the Vitae RDF domains, highlighting areas of strongest and weaker progress, and considers how these developments contributed to participants' emerging identities as researchers and potential leaders.

In comparing the extent of positive change across the different outcome measures, it is important to note that given the small number of respondents, differences between measures often reflect only one or two participants. Secondly, two participants did not complete all the measures on the post-programme evaluation.

4.3.1 Knowledge and Intellectual Abilities (Domain A)

The programme made a clear contribution to developing participants' research knowledge and intellectual capabilities, although the extent of progress varied across sub-domains.

Growth in curiosity and openness as well as in confidence to ask thoughtful and challenging questions was most widely reported in this domain, indicating that the programme made a substantial contribution to fostering an inquiring mind (A3). Qualitative feedback highlighted that creative activities in particular had helped them to broaden their perspectives and encouraged greater openness, risk-taking, and questioning of assumptions (see 4.1.2.3). A supportive environment that fostered feelings of psychological safety was also identified as an important enabler of developing a more inquiring mindset (see 4.1.1.1).

Confidence in identifying and accessing reliable research sources also increased for most participants, reflecting growth in information seeking (A1). In addition, confidence improved in developing a research question from a practice-based problem (A2 Problem Solving), although a greater proportion reported no change in this area.

With regards to critical thinking (A2), critically evaluating the components of successful health and care research was the area where the greatest proportion reported substantial gains in this domain. Confidence in critically evaluating research findings and assumptions also showed similar numbers of gain, but the depth of change was modest compared with other areas in this domain.

With regards to critical thinking (A2), most participants improved their confidence in evaluating research findings and assumptions, though only one reported feeling much more confident. Several participants noted that they would have welcomed more structured opportunities to practise critical evaluation, highlighting scope to strengthen this element in future (see 4.1.5.4). By contrast, whilst a similar proportion reported improvements in confidence to critically evaluate the components of successful health and care research, a greater share described feeling much more confident, marking this as a particularly significant aspect of growth for some participants.

Confidence in understanding the principles and governance of ethical and sustainable research also increased for most participants, reflecting growth in relation to Ethics, Principles and Sustainability (C1)

4.3.2 Personal Effectiveness (Domain B)

The evaluation indicates that the programme made a substantial contribution to participants' personal development as researchers, in relation to strengthening self-reflection, confidence, and enthusiasm.

Self-reflection (B1) emerged as a clear area of growth, with all but one participants reporting that they were reflecting more deeply and frequently on their strengths, limits, and learning needs. However, fewer characterised this change as substantial compared with other measures in this domain, suggesting that whilst reflection became more widespread, the depth of change was less marked. Feedback suggested that the

reflective activities deepened participants' self-reflection, fostering greater self-awareness and, for some, a stronger sense of agency. In this regard, some describe now beginning to advocate for themselves and voice their views more confidently, laying the groundwork for the broader gains in self-confidence described below.

Confidence to contribute to research was one of the clearest areas of positive change in this domain, reflecting substantial growth in self-confidence (B1). Participants reported feeling more confident about their capacity to engage in research, with several describing the course as a key turning point in helping them to rebuild self-belief and start to consider career options they had previously thought out of reach.

Motivation and enthusiasm for engaging with research was another strong outcome in this sub-domain. Nearly all participants reported renewed or heightened enthusiasm, and qualitative feedback suggested that, for some, this translated into a greater sense of commitment to continuing their research journey.

Development of a researcher identity presented a more mixed picture. Whilst all participants described some positive change, only around half reported significant shifts in how they saw themselves as researchers. Compared with the more consistent growth seen in other measures, this suggests that identity formation is a slower and less uniform process, likely requiring sustained engagement and support beyond a single programme.

4.3.3 Professional and Career Development (Domain B)

The programme appears to have made a strong contribution to participants' professional and career development, though the extent and depth of change varied between measures aligned to this domain.

Confidence to identify development needs and seek opportunities to progress as a researcher was one of the strongest areas of growth within the professional and career development sub-domain (B3). Many participants reported substantial growth, with few indicating no change, suggesting that the programme provided a solid foundation for CPD planning. By contrast, confidence in using the Vitae RDF to plan development was more uneven, likely reflecting varying levels of prior familiarity with the framework and mixed perceptions of its relevance, pointing to the need for stronger support in applying it in practice (see 4.1.5.1). Confidence in career planning and taking ownership of next steps in research development also improved, showing growth in relation to Career Management (B3)

Growth in confidence to apply for opportunities appropriate to their career stage and increases in awareness of funding and development opportunities showed a more moderate pattern of change, although most participants reported some improvement. This result suggests that responsiveness to opportunities (B3) was supported to some extent, but may require greater emphasis in future delivery if participants are to make the most of the opportunities available to them. Even so, participants described broadening their view of possible career routes, with some highlighting aspirations such as clinical doctorates, PhDs, or Associate PI training. For others, growth was linked to broader commitments to equality, diversity and inclusion, or to mentoring and supporting colleagues. Time and organisational support were identified as potential barriers to pursuing these opportunities.

Most participants expressed intentions to continue engaging in research-related training and development, although around a quarter gave a neutral response to this question, suggesting some uncertainty about future engagement.

Measures aligned to networking (B1) and working with others (D1) were amongst the strongest outcomes in this domain. All but one participant reported greater confidence in building and using networks, developing collaborative relationships, and increasing access to supportive networks, with a notable proportion indicating substantial growth in these areas. Confidence in working effectively in teams also showed broadly comparable growth.

Qualitative feedback highlighted that participants were expanding their networks within and beyond the cohort, and in some cases linking these directly to career development. For some, this growth was linked to personal growth, such as greater ease in making connections, stronger self-perception, and feeling that their contributions were valued.

Changes in participants' sense of belonging to a wider learning community was less pronounced than other measures in this domain, likely reflecting the limited sense of connection participants felt outside their coaching groups and pointing to the need for more opportunities to build social engagement across the wider cohort (see 4.1.4).

4.3.4 Engagement, Influence and Impact (Domain D)

Communication methods (D2) were a strong area of growth within this domain, with all but one participant reporting greater confidence in communicating their ideas to different audiences and in using a range of formats and media, with a notable proportion indicating substantial improvements.

Qualitative feedback suggested that increased self-awareness and adaptability, along with feeling "braver" about taking creative risks or showing vulnerability, underpinned these improvements. Presentation tasks were also seen as valuable in prompting participants to experiment with new formats and develop more engaging ways of sharing their research. These findings highlight the programme's success in fostering the skills, confidence and creativity needed to make research accessible and impactful across a wide range of audiences.

In relation to Influence and leadership (D1), a comparable proportion of participants reported greater confidence in reflecting on what leadership involves and in demonstrating it in practice, although fewer described these gains as substantial. Whilst all participants reported some positive change in seeing themselves as someone who could lead or influence research, half of the cohort were more tentative in this regard. This finding suggests that although the programme strengthened participants' understanding and practical confidence in leadership, for many this is not yet translating into a robust leadership identity.

Reflecting on how the programme had supported their leadership development, some participants described now viewing leadership as a process of working with and enabling others. Some also described applying this perspective in practice, for example by adapting their approach to different personalities, using active listening, or supporting colleagues to engage with research. One participant linked their increased confidence in leadership to growth in critical thinking, situating this skill as a key part of being a leader.

Several participants, however, felt that leadership development was less prominent in the programme compared to other areas. Facilitators also acknowledged the challenge of making leadership feel relevant within an introductory programme, where participants are still consolidating their research skills. They reflected on the importance of presenting leadership as a form of agency that can be exercised without formal authority, and of foregrounding relational approaches rooted in collaboration and trust.

These findings suggest that the programme helped participants begin to reframe leadership in more relational and collaborative terms, and in some cases to apply this in practice, however further emphasis and clearer framing may be needed to support participants in building a stronger sense of themselves as research leaders.

Awareness of how research is shaped by, and in turn shapes, wider social, cultural, and environmental factors increased for most participants, with several reporting substantial gains in relation to this measure of Engagement and Impact (D3). Qualitative feedback also highlighted the value participants placed on learning about patient and public involvement (PPI) in the programme, with this being a key area of interest for a number of participants.

4.3.5 Comparison across measures

The results indicate that the programme had its strongest and most consistent impact in building participants' confidence in networking, collaboration, communication, and identifying development needs. These areas saw the widest reporting of positive change and some of the highest levels of substantial change, suggesting that participants experienced both breadth and depth of growth in these domains.

By contrast, while motivation, enthusiasm, and self-reflection were areas in which almost all participants reported improvement, fewer described their gains as substantial. This pattern may suggest that participants already entered the programme with a baseline level of confidence in these areas.

Leadership outcomes present a more mixed picture. Many participants reported positive change in critically reflecting on what leadership involves and demonstrating leadership in practice, but very few experienced substantial shifts in confidence. In addition, all participants reported some positive change in seeing themselves as potential leaders, but many remained tentative, indicating that leadership identity is still emerging. This suggests that while the programme helped participants to start engaging with leadership, further emphasis is needed to build confidence in this area and support participants to develop a more robust leadership identity.

Other comparatively weaker outcomes, such as confidence in critically evaluating research findings, developing research questions, using the Vitae RDF, and understanding ethics, governance, and applying for and awareness of funding and development opportunities highlight domains where additional emphasis may be needed in future iterations of the programme.

The overall picture, however, is one of clear progress towards the programme's aims. Participants developed greater confidence in their ability to reflect critically on their professional development, contribute to and influence research, and strengthen the skills and competencies required for early career researchers. The programme also supported the development of a stronger researcher identity, with all participants reporting some degree of positive change in this area.

4.4 How can the findings be used to strengthen the design and delivery of future iterations of the programme?

The evaluation findings highlight opportunities to enhance the programme's design and delivery in ways that can strengthen different dimensions of engagement and better support the achievement of programme outcomes as follows:

Emotional engagement

- Ensure icebreakers, particularly in the early sessions, avoid requiring overly personal disclosure, instead focusing on activities that gradually build comfort, trust and social connection
- Emphasise the importance of a private workspace in creating psychological safety and enabling open participation (see below)
- Continue using structured reflective tools such as MBTI in the early sessions to build self-awareness and mutual understanding through which people feel more comfortable to open up and share their experiences
- Continue supportive facilitation that concentrates on building psychological safety in the early sessions.
- Make explicit the role of participants in co-creating safe spaces and encourage peer behaviours such as inviting contributions, positioning these as opportunities to develop collaborative leadership skills

- Design early sessions to intentionally build familiarity, psychological safety and confidence in contributing to whole-group discussions (see below)
- Consider half-days for some sessions and ensure sufficient screen breaks and varied activities during full-day workshops to better manage fatigue and sustain energy,
- Incorporate interactive and creative activities, including opportunities for movement or time outdoors, to re-energise participants and sustain motivation.

Behavioural engagement

- Release pre-learning earlier to give participants more flexibility in managing time and sustaining engagement.
- Reduce initial pre-learning reading load and gradually introduce more complex materials to avoid overwhelming participants.
- Provide a diverse mix of formats (e.g., videos, reflective tasks, short readings) to cater to different learning preferences.
- Explore offering differentiated activities and resources to cater for participants at different levels of experience and need.
- Consider post-session tasks for some content, to accommodate different working styles and reduce overload before workshops.
- Strengthen explicit links between pre-learning and online sessions so participants see its relevance.
- Explore light-touch accountability, such as short submissions or Miro board additions that feed directly into the online workshops, whilst avoiding undue burden.
- Continue to design highly interactive workshops, minimising over-reliance on small group and whole-cohort discussion
- Replace less effective mechanisms such as the red/green cards and repeated icebreakers to better sustain attention and engagement.
- Circulate and reiterate shared participation guidelines, including clear guidance on confidentiality, camera and microphone use, and respectful interaction, while balancing this with inclusive practices that accommodate different circumstances and needs.
- Clarify the purpose of creative methods to overcome discomfort and maximise engagement.

Collaborative engagement

- Recognise that participation in whole-group discussions depends on psychological safety and social connection so that early sessions focus on build familiarity and confidence so that contributions increase over time.
- Recognise chat contributions as a legitimate form of participation and engagement, particularly in early sessions when confidence to speak is limited. Strengthen inclusive facilitation by actively integrating these contributions into discussion, for example by designating a facilitator to draw out key points and invite participants to expand on them verbally.

- Strengthen whole-group facilitation by using strategies such as direct invitations, follow-up questions, and structured feedback from small groups to encourage participation, while ensuring inclusivity by, for example, inviting volunteers, rotating group spokespeople, or drawing first on written contributions to avoid putting individuals on the spot.
- Avoid over-reliance on “go-round” formats by adopting approaches that build on contributions and sustain momentum.
- Strengthen whole-group discussions by encouraging critical engagement, linking conversation to key themes, and drawing on expert input where relevant to stimulate deeper engagement.
- Provide flexibility in small-group work by allowing additional time where needed, offering alternative activities for groups that finish early, and creating simple ways to signal to facilitators when they need support or are ready to move on.
- Increase facilitator presence in small-group discussions to guide and support deeper engagement, whilst balancing this with maintaining participant autonomy.
- Vary small group composition to prevent fixed dynamics and encourage wider interaction.
- Assign or rotate simple roles within small groups (e.g. spokesperson, time-keeper, note-taker) to share responsibility and encourage more balanced contributions.
- Offer some flexibility for participants to join groups where shared interests or similar challenges can be explored, supporting more constructive discussion.
- Retain coaching as a core component, but make its aims clearer from the outset, illustrating its value with concrete examples of positive impact to enhance perceived relevance.
- Provide earlier and clearer programme guidance on mentoring, distinguishing it from coaching, with case studies of successful mentoring relationships and criteria for selecting mentors.
- Offer targeted support to help participants build confidence in approaching potential mentors, identify suitable contacts, and address practical barriers such as time, access, and initiating conversations.

Social engagement

- Incorporate face-to-face elements, particularly at the beginning of the programme, to help establish relationships and accelerate a sense of an emerging learning community.
- Introduce structured, purposeful online social spaces from the outset and actively support their use, while being mindful of time pressures and screen fatigue.
- Consider creating opportunities for ongoing social engagement and informal interaction beyond the programme, helping participants to maintain connections and sustain peer support networks.

Cognitive engagement

- Provide clearer signposting and roadmaps to link individual workshops to overall aims and the Vitae RDF.
- Clarify the interrelationship between personal development and professional development as a researcher from the outset.

- Explain how the programme content supports both research skills and research engagement, making clear its relevance for novice and more advanced early career researchers to manage expectations about programme level.
- Expand inclusion of guest speakers to enhance personal relevance and cognitive engagement by making content more accessible, motivating, and connected to practice.
- Make the programme's approach to critical thinking explicit by explaining how different activities (reflection, analysing evidence, debating ideas) fit together and link back to the overall aims.
- Involve more experienced practitioner researchers to role-model critical thinking and demonstrate how reflection, appraisal, and inquiry are enacted in practice.
- Explain the purpose of reflective and critical thinking exercises, showing how they strengthen research skills and support participants in developing their identity as researchers.
- Offer more structured opportunities for critical engagement, including critical evaluation and debate alongside self-reflection.

Programme delivery and context

- Continue to provide proactive IT support and early induction into different technical platforms.
- Reconsider the use of Miro, weighing its benefits against the usability challenges experienced by participants.
- Ensure all materials remain accessible on Canvas throughout the programme to support catch-up, and consider making session recordings available where this will not compromise confidentiality or discourage open contributions.
- Emphasise the importance of a private workspace to enable the participatory style of online learning central to this programme, and work closely with organisations to help protect this time.
- Balance the advantages of online access with some participants expressed preference for hybrid formats by exploring the inclusion of occasional in-person elements (see social connection)
- Maintain a consistent core facilitation team for trust and coherence, while curating diverse facilitation styles and a range of guest speakers to broaden perspectives.
- Explore increasing demographic diversity among facilitators to enhance inclusivity and representation.
- Retain strong leadership and review structures, and provide planning time for facilitators to build relationships across professional boundaries, clarify roles, and strengthen collaboration.
- Provide facilitators with opportunities to rehearse sessions, establish shared protocols for working online, and clarify roles, supporting trust and effective collaborative delivery.
- Create a virtual 'staff room' for facilitator communication and co-ordination during workshops.

Programme outcomes

- Place greater emphasis on making leadership relevant to participants at an early stage of their researcher journey

- Integrate more opportunities for networking and community-building across the whole cohort (including with facilitators)
- Strengthen support for critical thinking and enquiry skills, including evaluating research findings, analysing the components of research and developing research questions from practice-based problems.
- Provide more structured opportunities to practise and apply new skills through hands-on tasks or real-world case studies, so that confidence translates into deeper and more substantial change.
- Offer clearer guidance on applying the Vitae RDF to support development planning.
- Encourage participants to plan how they will sustain their motivation, enthusiasm, and development after the programme ends, for example by linking them to peer networks, mentors, or ongoing training and development pathways.
- Increase focus on building confidence in applying for opportunities appropriate to participants' stage of researcher development, and strengthen awareness of funding and development options to help them progress their research careers.
- Consider giving greater attention to research governance and PPI.
- Support participants to develop a stronger sense of researcher identity by embedding activities that explicitly connect reflective work to professional identity formation.

5 Appendix A

Initial Theory of Change

Wider context

- **Participant infrastructure:** reliable computer/laptop, internet connection, camera and microphone
- **Organisational support:** release time to participate fully
- **Participant environment:** quiet, private workspace with stable internet connection

Inputs and resources

- **People:** InRes delivery team, external speakers, coaches, mentors, participants
- **Technical infrastructure:** MS Teams, WhatsApp, Miro, Canvas.
- **Programme activities:** Online workshops, asynchronous learning resources (Canvas), group coaching, mentoring, assignments

Mechanisms of change (how change is expected to happen)

The programme draws on the Redmond et al. (2018) Online Engagement Framework to conceptualise the interrelated dimensions of engagement that support learning:

- **Social engagement** (community)
- **Collaborative engagement** (collaboration)
- **Emotional engagement** (curiosity, confidence, safety)
- **Behavioural engagement** (participation)

Leading to and reinforced by:

- **Cognitive engagement** (criticality)

Learning Outcomes (short-term results)

Participants will:

- Evaluate critically the intrinsic and extrinsic factors that are involved in successful health and care research.
- Analyse and evaluate critically the components, application and importance of leadership in a practitioner research environment.
- Reflect critically on the personal and professional development requirements of becoming a healthcare research leader.
- Demonstrate and apply newly acquired knowledge related to networking and its impact on health and care researcher effectiveness.
- Identify, understand and begin to develop the knowledge and intellectual skills in research appropriate to early career, health and care researchers.

Intended Impacts (longer-term results)

Individual impacts:

- Developing a research career (e.g., internships, in-practice fellowships, pre-application funding, HCP credentials, research ambassador roles).
- Progression to doctoral studies or leading research projects.

Organisational impacts:

- Enhanced research culture.
- Improved staff retention.

- Increased research activity.

System-level impacts:

- Better patient and healthcare outcomes through improved research capacity.

Broader system drivers

- **Policy and strategy:** NHS Long Term Workforce Plan; professional development strategies prioritising research capability; post-COVID digital strategy and system-wide digital agendas.
- **Evidence base:** clear links between research, patient outcomes, and staff recruitment/retention; positive impact of ECRDP on researcher capability and capacity.
- **Equity and access:** demand for more flexible, accessible programmes to reduce barriers (e.g. release time).
- **Scaling and efficiency:** extend reach and deliver cost-effective workforce development.

6 Appendix B

Revised Theory of Change

Wider context

- **Participant infrastructure:** reliable computer/laptop, internet connection, camera and microphone.
- **Organisational conditions:** organisational support and role flexibility make it easier to balance participation with work responsibilities.
- **Participant environment:** quiet, private workspace with stable internet connection.
- **Online format:** increases accessibility by removing travel barriers, reducing stress, and supporting those with social anxieties. Hybrid models likely balance accessibility with stronger social and collaborative engagement.

Inputs and resources

- **People:** InRes core facilitation team, external speakers, coaches, mentors, participants.
- **Management:** leadership, clear roles, regular planning and coordination (e.g. a virtual staff room).
- **IT support:** Proactive IT support and induction activities
- **Technical infrastructure:** MS Teams, WhatsApp, Miro, Canvas.
- **Programme activities:** interactive workshops, asynchronous pre-learning, group coaching, mentoring, assignments.
- **Methods:** Creative and interactive activities

Mechanisms of change (how change happens)

The programme draws on the Redmond et al. (2018) Online Engagement Framework, where dimensions of engagement are interrelated and mutually reinforcing:

- **Emotional engagement (curiosity, confidence, safety, motivation)**
 - Online interaction options (e.g. chat, camera use) can reduce anxiety and enhance psychological safety,
 - Supportive facilitation, reflective tools and peer behaviours reinforce psychological safety, building confidence and motivation.
 - Consistency in the core facilitation team fosters familiarity and stability, creating safe conditions that build participants' comfort, confidence, and trust.
 - Coaching groups strengthen emotional engagement by providing safe spaces for openness.
 - Ensuring relevance to participants' goals sustains motivation and commitment.
 - Varied, interactive, and creative activities help re-energise participants and sustain curiosity.
 - Balanced pacing, breaks, and session formats help manage fatigue while maintaining immersion.
 - A supportive and motivating environment fosters enjoyment, satisfaction, and enthusiasm.
 - IT support and induction builds digital confidence and reduces barriers.
- **Social engagement (community)**
 - Induction, small-group work, and coaching foster early connections.
 - Psychological safety supports openness and trust, which in turn strengthen social bonds.
 - Coaching groups reinforce community by combining social connection with emotional support.
 - Inclusive facilitation and reflective tools encourage sharing and deepen connections.
 - Opportunities for informal social interaction online require purposeful design and active facilitation.
 - Early face-to-face or hybrid elements are likely to accelerate trust-building and community bonds.

- **Collaborative engagement (working with peers, coaches, mentors)**
 - Enabled through small-group discussions, coaching, and mentoring.
 - Coaching provides protected, supportive spaces that foster peer learning, reflection, and collaboration.
 - Effective whole-group facilitation integrates chat contributions, avoids over-reliance on “go-rounds,” and uses structure and expert input to sustain engagement.
 - Mentoring is most effective when supported early with clear frameworks, guidance, and help identifying suitable mentors.
- **Behavioural engagement (participation and preparation)**
 - Evidenced through attendance, adherence to norms, pre-learning, and assignment completion.
 - Sustained engagement with pre-learning depends on early release of materials, appropriate level of challenge, and diverse formats (readings, videos, reflective tasks) support sustained engagement.
 - Clear alignment between pre-learning and workshops sustains intrinsic motivation for participants to complete the work
 - Accountability mechanisms (e.g. preparatory tasks feeding into workshops) reinforce extrinsic motivation.
 - Creative methods and varied activities sustain participation when their purpose and relevance to the learning objectives is clear.
- **Cognitive engagement (criticality and reflection)**
 - Strengthened when participants integrate ideas, question assumptions, and apply learning to practice.
 - Clear purpose, framing, and explicit links between workshop content, programme aims, and the Vitae RDF help participants integrate learning and understand its relevance.
 - Structured reflection consolidates learning and supports researcher identity development.
 - Explicit framing of critical thinking (reflection, evidence appraisal, debate) clarifies its role and supports deeper inquiry.
 - Guest speakers and real-world examples enhance accessibility and relevance.
 - Alignment with participants’ prior experience and expectations is important, with some requiring more challenge.

Learning outcomes (short-term results)

Participants increase confidence and capacity in:

- critically evaluating factors in successful health and care research.
- developing an emerging understanding leadership in practitioner research and how it can be applied in practice.
- reflecting critically on personal and professional development needs.
- networking, collaboration, and recognising their role in research careers.
- building early-stage research knowledge and intellectual skills to support progression as practitioner-researchers.
- sustaining motivation, and enthusiasm for research engagement.
- strengthening self-awareness and reflective skills
- gaining awareness of career development pathways and beginning to plan next steps.

- communicating clearly to diverse audiences using different media and styles
- recognising the wider social and cultural context of research, including patient and public involvement.
- forming an emerging researcher identity

Intended impacts (longer-term results)

Individual

- Progression in research careers (e.g. internships, fellowships, doctoral studies, research ambassador roles).
- Increased agency and confidence to pursue opportunities.
- Development of stronger researcher and leadership identities over time.

Organisational

- Strengthened research culture and integration of research into practice.
- Improved staff motivation, retention, and career satisfaction.
- Increased organisational capacity for research activity.

System-level

- Improved patient and healthcare outcomes through enhanced research capacity.
- Stronger communication and public engagement in research.
- More equitable access to practitioner-researcher development opportunities.

Broader system drivers

- **Policy and strategy:** NHS Long Term Workforce Plan; professional development strategies prioritising research capability; post-COVID digital strategy and system-wide digital agendas.
- **Evidence base:** clear links between research, patient outcomes, and staff recruitment/retention; positive impact of ECRDP on researcher capability and capacity.
- **Equity, diversity, and inclusion:** demand for flexible and inclusive programmes that reduce barriers (e.g. release time) and strengthen representation in research and professional development.
- **Scaling and efficiency:** extend reach and deliver cost-effective workforce development.