



Learning to learn together – building belonging from the beginning

Andy Gridley, The University of Manchester, England

Catherine Collin, The University of Manchester, England

Jennie Blake, The University of Manchester, England

Ketan Parmar, The University of Manchester, England

Catherine Porter, The University of Manchester, England

Will Holmes, The University of Manchester, England

ABSTRACT

Prior to 2024, the induction for new first year Optometry students at The University of Manchester followed the Institutional format of “Welcome Week”. In the academic year 2024/25, a new integrated Master of Optometry programme was launched, and the academic team took the opportunity to reframe the activities, intentionally designing induction to establish the collaborative learning culture required for Team-Based Learning (TBL), a central feature of the new programme. The Optometry ‘Learning to Learn’ team designed, organised and delivered four weeks of Welcome and Induction activities, which were aligned with the pillars of belonging (connection, inclusion, support, autonomy) found in the WONKHE report (Blake et al., 2022) and with the principles of transitional pedagogy (Kift, 2015). In this paper we will describe how we mapped activities onto these pillars, in particular the pillar of “support”, its impact on the student participants and recommendations for future practice.

In this induction, students undertook a variety of events from staff “speed meet & greet”, mathematics games, visits to the Whitworth Art Gallery, a treasure hunt in the Manchester Museum and a sound bath. In addition, there were several introductory Team Based Learning sessions and group academic advisor meetings at a range of coffee shops in the University spaces. Our aim was to enable students to build a sense of connection (between themselves, staff, the different year groups and the wider university) and belonging from the beginning.

Full ethical approval was obtained to run the evaluation of these activities as a mixed methods study using questionnaires and focus groups. Out of an intake of 80 optometry students in 2024/25, a majority of students stated they felt at least partially part of the optometry community. Participants also reported making on average 19 connections with other individuals. Survey data was supported by results from focus groups. In addition, Belonging, Engagement and self-confidence scores were obtained at the end of the first year (Yorke, 2016). They significantly increased for the 2024/25 first year cohort in comparison to the 2023/24 year cohort.

Keywords: belonging, optometric education, inclusion, induction

Background

It is standard practice for a degree programme at The University of Manchester to organise a ‘Welcome Week’ for first year undergraduates. For the 2024/25 academic year, the Optometry team extended this to a four-week period, deliberately aligned with the four pillars of belonging found in the WONKHE research

“Building Belonging in Higher Education” (Blake et al., 2022). We called this period “Learning-to-Learn” (LtL).

This shift was in response to several factors. In 2021 the optometry regulator, the General Optical Council, published new standards and outcomes for qualifications leading to registration. As a result, the Optometry team at The University of Manchester had to adapt the previous level 6 BSc Optometry programme into a level 7 Master’s programme. After a period of consultation and discussion, it was decided first that:

- Case Based & Team Based Learning (TBL) would become the primary strategy for learning and teaching (Parmelee et al., 2012).

Team based learning is a teaching practice that focuses on students learning through structured groupwork and, crucially, uses knowledge checks and peer feedback as core elements (Whitley et al., 2015). This approach was selected based on the reflections of staff, students and visiting clinicians. All three groups noted friction and a disconnect between student learning and their ability to apply and understand that learning within clinical settings, compounded by inexperience working in a clinical team. These observations, coupled with the awareness of a lack of engagement with traditional lectures, prompted the switch to TBL.

Secondly, the programme approach needed to better integrate assessment practices that enabled skills and knowledge to be applied in future clinical settings. Thus, the second key change was:

- Removing high stakes assessments of clinical competence and switching to a longitudinal approach using Entrustable Professional Activities (EPAs)

Our programme typically used end point high stakes assessments such as one-off observations or Objective Structured Clinical Examinations (OSCEs) in an attempt to evidence clinical competence. Feedback from staff showed that students often cram for these practical assessments at the last minute or do not retain their skills after ‘passing’. In line with the wider healthcare education literature, we began to question the value of one off high stakes assessments (Sidhu & Fleming, 2024) and decided to move to using EPAs. A full explanation of EPAs and their benefits is beyond the scope of this paper; readers are referred to Holmes et al. (2024) for an overview.

These programme-level decisions meant induction could no longer function as simple orientation; students needed early experiences that modelled collaboration, shared responsibility and relational learning so TBL could work as intended, impacting professional practice and academic understanding.

Recognised as an approach that impacts both student belonging and academic success, relational pedagogy (Hickey & Riddle, 2024; Gravett et al., 2024) is key to the success of both TBL and EPAs. The former relies on students learning from each other and academic staff as part of a community. The latter involves a continuous process whereby the student engages with, learns from, and gains the trust of the wider clinical community. It was therefore considered essential to lay stronger and deeper foundations for belonging and community at the start of the student journey, moving the focus of induction from orientation to integration and belonging (figure 1) This deliberate change allowed us to embrace all four of the WonkHE pillars of connection, inclusion, support and autonomy (Blake et al., 2022).

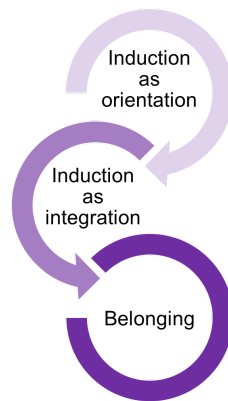


Figure 1 Illustration of the shift from induction as orientation to induction as integration and belonging, based on Tinto’s 2009 model of student integration

The Learning-to-Learn team (2024-25)

Andy Gridley, Catherine Collin and Will Holmes were the leaders of the team in 2024-25. They currently hold posts as teaching and scholarship academics at The University of Manchester. Drawing from a principle that transition into higher education is “everybody’s business” (Kift et al., 2015) the planning and delivery team drew from a wide range of professional staff. These included reception and support staff (Jennifer Shaw, Jane Shepherd & Helen Osisami) technicians (Stephen Craig & Venus Muscat-Craig); a second year optometry student working as a summer intern (Aisha Khan); support staff from the School of Health Sciences (e.g. student support hub/wellbeing team) and staff from across the wider University (e.g. working at the Whitworth Art Gallery, Manchester Museum, the University Library and Institute for Education).

Mapping to the Four Pillars of Belonging

As previously stated, this approach to induction aligns with the WonkHE pillars. This meant we designed activities that mapped onto one or more of the four pillars, deliberately seeking to ensure each was covered, and we were moving towards students having autonomy over their work and interactions on the programme. This alignment provided a practical structure for introducing the relational, collaborative habits that TBL requires, supporting staff efforts to embed and enhance skills and knowledge that were previously difficult to ensure were consistently acquired across the cohort. Some activities transcended the boundaries of the pillars more than others. Students reflected on their engagement with and reaction to each activity, and reflections were reviewed by one of the LtL team. A set of exemplary activities are outlined below (Figure 2/table 1). A full inventory can be accessed here: [Doi: 10.48420/31890316](https://doi.org/10.48420/31890316).

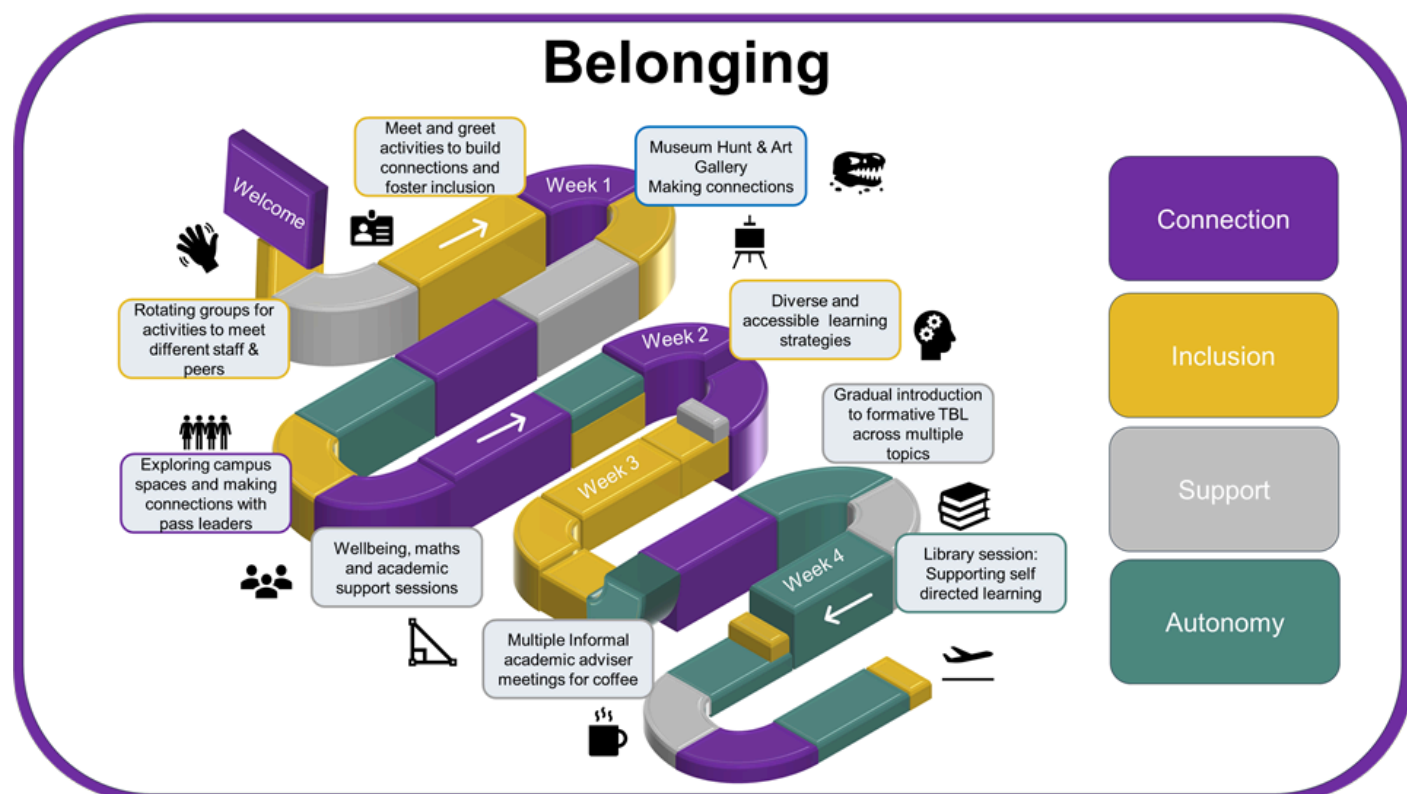


Figure 2 Infographic illustrating the integration of the four pillars of belonging throughout the ‘learning to learn’ period, moving increasingly towards autonomy

Table 1 Examples of activities which mapped onto the four pillars

Connection	Inclusion	Support	Autonomy
Meet the Staff Event Book an Eye Exam Coffee with Academic Advisor	Manchester Museum Medical Museum Whitworth Art Gallery	Peer Assisted Study Sessions (PASS) introduction to peer-led academic support Societies Fair	Acting as an academic advisors Six ways to wellbeing (individually driven approaches to mental wellbeing and health)

Each of these activities attempted to introduce students to place (eg campus spaces), people (eg PASS leaders and other peer connections) and their programme (academic advisors, programme team) in ways that deliberately built their own sense of belonging to the programme and enabled them to fully join in to the academic and professional requirements found in TBL and EAS. Student engagement with the activities themselves was strong.

Evaluation Methods

To ensure that the intended impacts on belonging were achieved, the LtL programme was evaluated using a mixed methods approach:

First, a LtL questionnaire (table 2) was administered to the entire year group at the end of the LtL period. The questions were designed and reviewed by the LtL team and sought to elicit student views on individual activities across the four-week period.

Table 2 The Learning to Learn questionnaire

Question Number	Question	Possible responses
1	Do you feel part of the optometry community?	Yes/No/Partly
2	Give a reason for your answer above.	Free text comments.
3	Which of the LtL activities did you find the most useful?	Pick three from the list, free text box for reasons.
4	Which of the LtL activities was the most enjoyable?	Pick three from the list, free text box for reasons.
5	Do you think we should remove any of the activities from the LtL period?	Students could pick as many as they wanted. Free text box for reasons.
6	Is there anything else you want to tell us about your experience over the last 4 weeks?	Free text box.

For additional insight, in-person focus groups ran in October and November 2024. All students were invited by email to sign up. Appendix 1 provides the focus group schedule. Focus group transcripts were examined using reflexive thematic analysis (Braun & Clarke, 2006). An inductive coding approach was employed. Initial coding was carried out by one co-author, who engaged in data familiarisation, generated codes, and developed themes through iterative cycles.

Two other co-authors then reviewed and refined the themes. Any differences in interpretation were resolved through discussion, resulting in a final thematic structure that accurately captured the key insights shared by participants

Finally, a Belonging Survey drawn from wider sector work (Yorke, 2016) was administered to all students at the end of the academic year in May 2025. This survey was chosen as it is designed to measure three interconnected aspects of the student experience in higher education: belongingness, academic engagement and self-confidence. These factors are key contributors to student success, progression and retention in UK higher education (Allen et al., 2024) The short survey provides a concise and practical way of capturing students' perceptions of how well they feel part of their institution, (in this case the optometry community), how engaged they are with their studies, and how confident they feel in their academic abilities. The instrument has been validated across multiple universities and produces reliable measures that can be compared across student groups and over time.

This evaluation had full ethical approval from The University of Manchester Research Ethics Committee (2024-20329-36063).

Results

End of LTL Questionnaire

There were 80 first year optometry students at The University of Manchester in the 2024/25 academic year. The questionnaire had a response rate of 85%. In response to the question "Do you feel part of the Optometry Community?" 71% said yes, 29% said partly. No one responded negatively to this question. Students reported they had on average made 19 new connections with a median of 15 new connections.

The students were asked to rate each of the activities they undertook as part of the LtL sessions on their opinion as to the value and their level of enjoyment. The results of the “most valuable” and “most enjoyable” sessions are shown in Table 3.

Table 3 Student ratings of Learning to Learn sessions the % relates to the number of students who picked this item as being in their top three.

Question	Staff Speed Meet & Greet	Coffee with academic advisor	Course Basics	Eye Know Maths	Manchester Museum
Which session was the most valuable?	43%	40%	37%	26%	16%
Which session was the most enjoyable?	38%	34%	21%	34%	57%

In addition to ratings, participants also provided free-text comments that demonstrated the impact of their engagement with LtL:

I find myself engaging and initiating conversation with people I hadn't met before which is a massive change in my personality as I (don't) usually feel comfortable in talking to strangers.

I speak to new people in my groups each time and we all are having similar experiences which helps us bond and feel like a community.

The evaluation also encompassed what might be removed from the induction programme. Most of the students selected between one and three activities that might be removed. Two students selected nine and ten activities respectively, giving the reason “it could have all been done online”. 31% wanted to keep all the activities. The most frequently chosen activities to remove were: Library Learning Strategies Session (34%), The Whitworth Art Gallery visit (34%), the Medical Museum (19%), Manchester Museum Activity (16%).

Focus Groups

There were three focus groups with 10 students in total. The demographics of the groups was broadly representative of the student cohort (90% female, 40% commuters, 20% part time job, 40% Pakistani, 20% White, 20% British Indian, 20% first in family to go to university). Table 4 describes the themes which emerged.

Table 4 Focus group themes

Theme	Positive Quote	Negative Quote
Needs	Put more fun stuff at the start	I think the first few weeks were quite full. Like you said that we were here every day, mostly, I
Improvement	Shift some of the online learning to later	

Learning to learn together – building belonging from the beginning

		think the second week we were in here every day. It just felt a lot.
Course content	I actually thought it's going to be quite formal. I thought it was going to be sit down. This is how you learn. This is how you use Word Excel, all of that. I thought was going to be very formal and to the point, but actually doing things like the trip to the art gallery, so fun. And seeing the student hub and knowing your school that we share with midwifery or pharmacy, for example, it's really nice to see that we're actually connected to so many different things. And it's not just this solitary, this is how you learn. It's, this is the environment we're going to be learning in	Activities were fun but I worried about the videos I had to watch
Organisation and admin	I enjoy things like going through lams (<i>the electronic TBL platform</i>) because I was quite intimidated by that, because it's a big online setting, and I'm used to working on paper at my old school, so learning how to use online things was really important for me	I think you're the opposite to me in that sense, because, like admin things, I find really boring I want to spend as little amount of time as possible that I can learning that kind of thing. I'd rather just be in an email, but I know not everyone checks their emails.
Staff	I also think our introductory session and everything was very friendly. I mean, usually when you hear things about uni, it's like, oh yes, your lecturers won't talk to you. Everyone just walks in and walks out, kind of thing. But I think it was really involving.	Nothing negative to say
Structure	I think I really enjoyed our first four weeks as well, because I'm not from Manchester, I found the first week really stressful in terms of where my buildings are, and stuff like that. But over the first four weeks, you realise that you're mostly in the same few buildings. And I do think that I'm better off for going to every session in the first four weeks.	I would say the same with the order maybe the first week, first welcome, just nothing online. And then second week, you'd have your optom [optometry], like, meeting everybody, and then your content, and then your actual optom sessions we had, like, the history one and stuff like that. Then prophesying the optom content with the optom learning and have like, one designated Welcome Week.
Student Experience	I really liked the first four weeks, where we were in every day, because like we were away from home and my accommodation, my flat, so it was quite nice to come in to school every day and then the course being so interactive.	Because I commute I found it like a bit of a hassle, coming in. It was four to five days a week, I think So that got a bit tiring by the fourth week. Now that it's three days a week I can just do my lectures at home on Mondays and Wednesdays. And then I'm only here three days a week. So that works out a lot better as a commuter. So maybe like count the number of days you- or how early the start is, because

		there's so much traffic in the mornings, so I have to set out really early.
--	--	-----------------------------------------------------------------------------

Belonging Survey

The data were checked for normality using the Kolmogorov – Smirnov test. They were not normally distributed so nonparametric statistics were used to compare the differences between the two groups. The results are shown in Table 5.

Table 5 Belonging, Engagement & Self Confidence Scores mean (standard deviation) (Yorke, 2016)

Scales	2023/2024 Traditional Welcome week	2024/2025 Implementation of 'learning to learn'	p
Engagement Scale	3.56(0.62)	4.00 (0.51)	<0.001
Belongingness Scale	3.98 (0.69)	4.33 (0.52)	0.004
Self Confidence Scale	3.20 (0.56)	3.36 (0.69)	0.021

Discussion

The stronger early focus on community and collaboration embedded in LtL echoed the expectations of TBL, helping students adjust more quickly to the shared-learning culture of the new programme and ensuring they could feel confident with this potentially new approach to learning.

Evaluation of LtL found it was successful in enhancing the students' sense of belonging, engagement, and self-confidence compared to the 2023/24 cohort, who received the traditional university 'Welcome week'. All respondents felt, or partially felt, part of the optometry community, with each student making approximately 19 new connections.

The belonging and engagement results exceed benchmarks reported by Yorke (table 6), suggesting that the LtL programme may offer a more effective model for fostering belonging than traditional induction formats in the wider HE sector. Although self-confidence scores also improved, they remained just below those reported by Yorke.

Table 6 Yorke, M. (2016). The development and initial use of a survey of student 'belongingness', engagement and self-confidence in UK higher education across 13 institutions vs The University of Manchester Optometry results 2023/2024.

Metric	Yorke Autumn 2013		Yorke Spring 2014		Optometry Manchester 2024/25	
	No of participants	Mean (standard deviation)	No of participants	Mean (standard deviation)	No of participants	Mean (standard deviation)
Belongingness scale	2841	4.06 (0.57)	2695	4.02 (0.60)	68	4.33 (0.52)
Engagement scale	2840	3.82 (0.52)	2695	3.77 (0.56)	68	4.00 (0.51)
Self-confidence scale	2841	3.48 (0.68)	2695	3.51 (0.68)	68	3.36 (0.69)

Thomas (2012) argues that belonging is not just desirable but critical to student success and retention and should be embedded early into the curriculum. The most valued sessions, “staff speed meet & greet” (43%) and “Coffee with their academic advisor” (40%), highlight the importance of informal, relational activities. Enjoyment scores were highest for the Manchester Museum visit (57%), suggesting that experiential, fun activities play a key role in fostering belonging and gave a necessary ‘break’ from the higher intensity activities. This further supports Thomas’ (2012) recommendation for discipline-specific induction strategies that integrate support and engagement.

I appreciate that this experience helped me gradually settle into university life, with it being a huge change. It was definitely supportive of my wellbeing. Thank you for creating this for us.

The difference between the value students attached to the Museum Visit and the level of enjoyment reported (table 3, 16% vs 57%) is striking. We suggest that the top five most valuable activities indicate that students were thinking in terms of direct or obvious utility in relation to their study of optometry – which is why the Museum Visit scored relatively low. In the domain of building belonging, we suggest it was valuable, as indicated by the high enjoyment rating. We will aim to test this hypothesis during future focus groups and consider whether future questions should be redesigned.

In keeping with the alignment with the four pillars, connection with staff, each other, university spaces, and optometry were prioritised using a range of activities. Their impact is helpfully summed up by one student's reflection on the museum visit: “I really valued this trip to be able to get to know my group members better in a setting other than a classroom “. A Campus tour with PASS leaders helped to build supportive social networks between year groups and served to highlight the support that was available. Each activity was designed in line with principles of engagement, learning environment, and transition to university, supporting students in connecting with peers, staff, and their discipline (Kift, 2015; Schijf et al., 2023). These early connections and experiences are vitally important as student persistence is strongly influenced by their sense of academic and social belonging (Tinto, 2009). Visits to the University’s art gallery and medical museum exposed students to spaces they might not otherwise have experienced. Qualitative data from focus groups and written reflections reinforced these findings: “It was such a wonderful experience to have the museum to us and being mixed into groups of new people was good to become more familiar with each other”. This aligns with Blake et al.’s (2022) assertion that connection is the most influential pillar of belonging. These early and varied connections were essential because successful TBL relies on students working confidently with a range of peers from the start: “The activities in the first few weeks helped me to meet nearly all the people on the course”.

Inclusion was embedded by ensuring there was a diverse range of activities that encouraged all students to participate and share their experiences. Students realised the benefits of seeing different perspectives “Individuals bring different ideas when discussing a case, and it is crucial to work as a team to make the best judgment regarding that case”. One example ‘Eye know maths’ aimed to gently reintroduce mathematical concepts in a fun and practical way. In addition, by tackling a topic of potential anxiety as a team, this activity modeled the approach students would find as they entered the formal programme and highlighted the relevance of individual experience and expertise. “The fun and creative way to get you working with other people making it a great way to bond with people on your course” was how one student described the session.

Support was also embedded throughout LtL. Wellbeing sessions, including a sound bath and practical tools for managing stress, interactive sessions with Library and support staff, helped to normalise engaging with support. Students described the programme as “supportive of my wellbeing” and that it helped them

“gradually settle into university life” and “what I’ve primarily taken from this session is to voice my concerns”. The impact of these activities was further reinforced using Chatbots to engage students with the resources available and when and how they can be accessed, which is a core principle of support (Tinto, 2009; Thomas, 2012; van Rooij et al., 2018), although this specific initiative was not measured in this first iteration. Support for teamwork skills and learning strategies (and how support and inclusion are intertwined) was captured by one student’s reflection: “This session helped me understand in more depth that not everyone learns the same way. I will keep this in mind during teamwork with peers and be more open to new ways of revising and studying...”.

Autonomy was nurtured through activities that encouraged reflection and student understanding of their own growth and capability. Visits to the art gallery and museums encouraged students to think differently, linking optometry to broader cultural and scientific contexts. The use of TBL is a significant shift from students’ prior experiences of education. Therefore, it is important for students to develop the skills to thrive, and reflection is an important part of this process. One student stated “One of the things I valued from this session is learning the importance of regularly reflecting on what I have been taught. It is okay to make mistakes at first as long as you learn from it, so you do not make the same mistake again in the future”. Again, this reflection reinforces the deliberate transformation of our induction focus from orientation to belonging, from “what is around me” to “what and whom do I know?”

Feedback also pointed to areas for improvement. Some students found the schedule intense, particularly commuters who struggled with daily attendance. However, students living away from home had an alternative opinion: “I really liked the first four weeks, where we were in every day, because like we were away from home and my accommodation, my flat, so it was quite nice to come in to school every day”. This suggests that while high engagement is beneficial, flexibility and consideration of diverse student circumstances are essential for inclusive design (Gilani & Thomas, 2025).

Lessons learned & next steps

In an increasingly diverse higher education landscape, student support that deliberately engages with impactful activities to support belonging from the outset give them the best chance of success. Throughout this work, we aimed to analyse the sense of belonging scores throughout the student journey, together with student status and final exam results, to better understand the impact of our interventions on student outcomes. The future findings of this work may contribute to the evidence that, in higher education, belonging is critical to student retention and success (Thomas, 2012). A key lesson we have learned so far was that induction can serve as an effective cultural intervention when a programme adopts TBL or other team-based pedagogies.

Implementation in other contexts

In this paper we have described the design, implementation and evaluation of the full 4-week programme. As we have shared our practice across our home institution and beyond, we have often been asked where other programmes might begin to implement similar changes, perhaps at a slower rate or piecemeal. We would suggest that the following three activities offer high impact with relatively modest resource implications.

- i) **Meet the Team Event.** Re-design the first contact that students have with your programme as an experience for them to get to know each other and academic/professional staff. Ensure the focus is

on getting to know one another and involves a variety of activities to facilitate this. The “dry” detail of the programme can wait till a bit later.

- ii) **Coffee with Advisors.** Redirect most, if not all, of any available budget away from catered events that students simply “show up to” and use the funds for smaller group based activities that enable students to get to know the university space, staff and each other. For us this meant academic advisers being vouchers to take students out in groups for coffees.
- iii) **Use your Cultural Institutions.** We have found that cultural institutions within our city, whether they are part of the university or not, have been keen to partner with us to enable students to access them. We suggest reaching out to whatever is in an institution’s locale to co-design something that students will enjoy and that will contribute to building belonging.

As our journey continued, in the summer of 2025, we worked with a student intern who reviewed all elements of the induction programme and, in communication with her peers, suggested changes and additions. She developed new sessions, contributed aspects like ice breakers to existing sessions and brought in induction resources used by other disciplines. For example, she arranged a session where students decorated the nearby ‘cosy space’ with their own work and comic strips created initially for the Psychology course at Manchester.

During this period, the intern also met with us regularly and contributed ideas informed by her own recent experience of joining the programme, helping us sense-check our assumptions about what incoming students would find useful. This collaborative approach to co-design supported the redevelopment of the Academic Success session, where her insights helped us focus on the practical challenges students commonly face in their first semester. It also informed the creation of a new Anatomy taster TBL session: she contributed to identifying key concepts and offered feedback on the drafts and application exercises, which helped refine the final sessions, so they aligned more closely with students’ needs and interests.

As we enter our second year, PASS leaders will increasingly deliver sessions and provide support, focused on using peer-led activities to improve self-confidence scores, which have been linked to student’s perception of difficulty of studying at university (Yorke, 2016). The main area of improvement identified was the timetabling of sessions and balance of activities throughout the induction period, rather than the activities themselves, with a particular need to ensure they work effectively for commuter students.

Over the next academic year, evaluation will continue in the same format involving focus groups and questionnaires, with the aim of continual improvement.

In conclusion, our approach was successful, with students reporting an increased sense of belonging, engagement and self-confidence. Students were also observed by staff to have developed teamwork skills and increased connections between both students and staff. The student comments reflected genuine behavioural change, as they began initiating conversations, building wide networks, and seeing learning as collaborative. Importantly, they named the culture we were trying to build, recognising connection and shared learning as the normal environment. End of year data showed higher engagement and belonging scores than the previous cohort, indicating a sustained cultural shift rather than a temporary induction effect. This suggests that the focus on early belonging did more than support transition; it helped embed the collaborative, relational culture required for TBL, with observable effects across the year.

Another metric that supports this shift has been the doubling of applications to be a PASS leader. Almost half of the year group who went through the second iteration of the induction period applied to be leaders in their 2nd year, a testament to their sense of community and desire to be involved in fostering student connections into the future. We suggest that by combining evidence-based design (Thomas, 2012; Blake et al., 2022; Gilani & Thomas, 2025) with a commitment to inclusion and engagement, a blueprint for developing student belonging can be created. If combined with student co-creation and a feed-forward model of student feedback, it becomes even more powerful.

Biographies

Dr Catherine Porter PFHEA CATE PGCertHE is a Senior Lecturer in Optometry at the University of Manchester. She has a special interest in the evaluation of clinical pedagogy. In 2023 she was the recipient of the University of Manchester's first CATE.

Mr Will Holmes PFHEA, PGCert MedEd is Reader in Optometry Education at The University of Manchester. He co-edited a special issue of *Optometry in Practice on Education* and has advised the General Optical Council on UK outcomes for optometry.

Dr Catherine Collin SFHEA, FAcadMed is a Senior Lecturer in Optometry with a special interest in clinical education pedagogy and programmatic assessment. She has presented at university, national and international conferences in the field of optometric education and was awarded a student-led creative teaching award in 2022.

Mr Andy Gridley FHEA PGCE is a Senior Lecturer in Optometry Education at The University of Manchester. He has a special interest in playful learning and has published work on his use of LEGO in optometry teaching.

Dr Ketan Parmar FHEA is a Lecturer in Advanced Clinical Optometric Practice at The University of Manchester. He has a special interest in optometric education and has published work on small group teaching in Optometry.

Ms Jennie Blake NTF CATE PFHEA is the Academic Theme Lead for Student Success at the University of Manchester and Associate Director for Teaching, Learning and Student Success at the University of Manchester Library. Her remit includes academic advising, student support, induction, transition and a variety of university-wide initiatives and policy.

References

- Allen, K., Slaten, C., Hong, S., Lan, M., Craig, H., May, F., & Counted, V. (2024). Belonging in Higher Education: A Twenty-Year Systematic Review. *Journal of University Teaching and Learning Practice*, 21(5).
- Blake, S., Capper, G., & Jackson, A. (2022). *Building Belonging in Higher Education: Recommendations for developing an integrated institutional approach*. Pearson-WONKHE <https://wonkhe.com/wonkhe-uploads/2022/10>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Gilani, D., & Thomas, L. (2025). Understanding the factors and consequences of student belonging in higher education: A critical literature review. *Journal of Learning Development in Higher Education* (34) <https://doi.org/10.47408/jldhe.vi34.138>

Gravett, K., Taylor, C. A., & Fairchild, N. (2024) Pedagogies of mattering: re-conceptualising relational pedagogies in higher education. *Teaching in Higher Education*, 29(2), 388-403, DOI: 10.1080/13562517.2021.1989580

Hickey, A., & Riddle, S. (2024). Proposing a conceptual framework for relational pedagogy: pedagogical informality, interface, exchange and enactment. *International Journal of Inclusive Education*, 28(13), 3271–3285. <https://doi.org/10.1080/13603116.2023.2259906>

Holmes, W., Porter, C., & van Tilborg, M. M. A. (2024). The potential for using entrustable professional activities in assessing optometric clinical competence. *Ophthalmic & physiological optics*, 44(6), 1138–1141. <https://doi.org/10.1111/opo.13343>

Kift, S. (2015). A decade of Transition Pedagogy: A quantum leap in conceptualising the first year experience. *HERDSA Review of Higher Education*, 2, 51–86.

Sidhu, N. S., & Fleming, S. (2024). Re-examining single-moment-in-time high-stakes examinations in specialist training: A critical narrative review. *Medical teacher*, 46(4), 528–536. <https://doi.org/10.1080/0142159X.2023.2260081>

Parmelee, D., Michaelsen, L. K., Cook, S., & Hudes, P. D. (2012). Team-based learning: A practical guide: AMEE Guide No. 65. *Medical Teacher*, 34(5).

Schijf, J.E., van der Werf, G.P.C., & Jansen, E.P.W.A., (2023) Measuring interdisciplinary understanding in higher education. *European Journal of Higher Education*, 13(4), 429-447, DOI: 10.1080/21568235.2022.2058045

Thomas, L. (2012). *Building student engagement and belonging in higher education at a time of change: Final report from the What Works? Student Retention & Success programme*. Paul Hamlyn Foundation. <https://www.phf.org.uk/wp-content/uploads/2014/10/What-Works-Summary-report.pdf>

Tinto, V. (2009, February). *Taking student retention seriously: Rethinking the first year of university* [Keynote address]. FYE Curriculum Design Symposium, Brisbane, Australia. http://www.fyecd2009.qut.edu.au/resources/SPE_VincentTinto_5Feb09.pdf

van Rooij, E., Brouwer, J., Fokkens-Bruinsma, M., Jansen, E., Donche, V., & Noyens, D. (2018). A systematic review of factors related to first-year students' success in Dutch and Flemish higher education. *Pedagogische Studiën*, 94(5), 360–404.

Whitley, H. P., Bell, E., Eng, M., Fuentes, D. G., Helms, K. L., Maki, E. D., & Vyas, D. (2015). Practical Team-Based Learning from Planning to Implementation. *American journal of pharmaceutical education*, 79(10), 149. <https://doi.org/10.5688/ajpe7910149>

Yorke, M. (2016). The development and initial use of a survey of student 'belongingness', engagement and self-confidence in UK higher education. *Assessment & Evaluation in Higher Education*, 41(1), 154–166. <https://doi.org/10.1080/02602938.2014.990415>

Appendix I Focus Group Schedule

Introduction and purpose of focus group

Hello. My name is Catherine Porter. I'd like to start off by thanking each of you for taking time to participate today. We'll be here for about an hour. I'm going to lead our discussion today. I will be asking you questions and then encouraging and moderating our discussion.

The reason we're here today is to gather your opinions and thoughts on the "Learning to Learn" module which you have just completed.

I also would like you to know this focus group will be recorded as was mentioned in the PIS. The identities of all participants will remain confidential. The recording allows us to revisit our discussion for analysis and

writing up the results into a paper. I will be able to engage more with you as opposed to writing constantly whilst you speak.

Ground rules

To allow our conversations to flow more freely, I'd like to go over some ground rules.

1. Only one person speaks at a time. This is doubly important as our goal is to make a written transcript of our conversation today. It is difficult to capture everyone's experience and perspective on our audio recording if there are multiple voices at once.
2. Please avoid side conversations.
3. Everyone doesn't have to answer every single question, but I'd like to hear from each of you today as the discussion progresses.
4. This is a confidential discussion in that I will not report your names or who said what to any outside of this room. Names of participants will not even be included in the final report about this meeting. It also means, except for the report that will be written, what is said in this room stays in this room.
5. We stress confidentiality because we want an open discussion. We want all of you to feel free to comment on each other's remarks without fear your comments will be repeated later and possibly taken out of context.
6. There are no "wrong answers," just different opinions. Say what is true for you, even if you're the only one who feels that way. Don't let the group sway you. But if you do change your mind, let me know.
7. Let me know if you need a break.
8. Are there any questions?

Introduction of participants

Before we start the discussion and recording can we go around the room and introduce ourselves with our names and where we have come from today.

Focus group discussion

Begin recording

Questions

- How have you found your first 4 weeks at University?
- What were your expectations of this module?
- What did you enjoy the most? Why?
- What was the least enjoyable? Why?
- What activities were most useful and why?
- What activities were least useful and why?
- Have you made friends/settled in?
- Is there anything you think we should add to the module? Why?

Conclusion

- CSP to try and summarise main points (ask if students agree)
- Have I missed anything? Is there anything else you would like to add?
- Thank participants for their time