

Listening to The Student Voice in Online Masters Community and Resource Development

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Abstract

Expectations of online masters students commencing their studies has been under-researched, as have the challenges of transition from undergraduates learning on-campus to postgraduate online students. The study described here investigates student expectations of this transition, development of resources for academic skills teaching, and student evaluation of interventions supporting them to join the academic community as masters. The methods were a series of action research cycles with a total of 38 students participating from 5 annual cohorts of Master of Research students, with the taught component entirely online. A student cohort (12 students) surveyed for initial course evaluation led to resources being developed for the course induction. Group interviews with the following cohorts evaluated new resource development after each course iteration, leading to further online seminars and skills resources development. In addition, further synchronous and non-synchronous activities with teacher presence were employed to improve student enculturation in the academic community. Recorded online interviews in virtual classrooms preceded transcription and thematic analysis, showing that student expectations of masters study and the skills required to join the academic community in all cohorts needed management. Students expected a continuation of undergraduate studies, 'but harder'. Development of an optional online academic skills course, allied to student activities embedded in specialist content with increased teacher and social presence, was praised by the last student cohort interviewed. The online skills course is available to other online courses within this Graduate School. This model may be transferable to other institutions, particularly in light of increased online Covid-19 teaching.

Keywords: masters, identity, online, communities of practice, communities of inquiry, academic skills

1. Introduction

1.1 Transition to Online Study for Masters Students

The popularity of online masters education is increasing (Fain, 2018). Online masters students often enroll on these courses after a gap in their education due to employment following their undergraduate degrees, or undertake flexible courses part-time so they can remain in employment. There has been little research into how students transition to masters from undergraduate study, or from employment gaps, with even less on the transition to online masters courses. This lack is significant because students are unlikely to have full knowledge of what to expect; they have been students before, but not at this level. New masters students need to develop an academic identity at a higher level of skill and independence than their undergraduate degrees, but not as high as that of doctoral students. There is much research on the transition to undergraduate level from school, and again for doctoral degrees (e.g., Briggs, Clark & Hall, 2012; Kiley & Wisker, 2009). Tobbell, O'Donnell & Zammit, (2010) suggested there has been little research into postgraduate masters students because it was assumed that they are already 'expert students' from their previous history of 'being' undergraduates. Tobbell et al.'s 2010 research showed that the change in identity of students becoming masters was negotiated in a highly complex environment, with many influences externally from students' non-university lives. Tobbell et al. (2010) studied on-campus students, but it seems reasonable to extrapolate these views to online masters students. Online courses generally have a higher attrition rate than on-campus courses (Shaw, Ferguson & Burrus, 2016). If we do not manage student expectations and the development of identity in our masters students by enculturating them in our academic communities, we risk a greater attrition rate (Su & Waugh, 2018). Consideration for students

learning online has become even more important since the Covid-19 pandemic and the migration of emergency teaching online. This paper contributes new knowledge by using the student voice to shape the development of resources and their online community, needed to ease online student transition into their masters identity in the academic community of practice.

1.2 Study Aims and Research Questions

This paper aims to investigate the expectations of online masters students and reflect on the subsequent development of online resources and activities to enable students to attain the identity of masters. The following research questions are investigated through qualitative research as action research cycles over successive years of cohorts of students taking a Masters of Research (MRes) course with the taught component of the programme as online distance learning:

- What are students' expectations of online masters courses?
- How can students be helped to achieve the academic skills required as masters in an online study mode?
- How can students attain membership of the academic community of practice and thus masters identity at this level?

The results are discussed in terms of communities of practice (CoPs) (Lave & Wenger, 1991) where the academic community at masters level is the CoP. This is used alongside the communities of inquiry (CoI) model of learning and teaching online (Garrison, Anderson & Archer, 2000). The study shows how the resources and actions developed from the findings can be used in online courses to assist masters students across the boundaries into the academic community as 'expert' masters. These interventions may be transferable to graduate schools with online courses in other universities, and could be useful in curriculum design for the flexible approach to learning and teaching forced upon institutions in the uncertainty of the pandemic.

1.3 Previous Research into Student Transition

Transition of students to an online master's degree from an on-campus undergraduate degree leads to greater flexibility in space and time of learning (Rabe-Hemp, Woollen and Sears, 2009). Crossing the boundary between undergraduate and postgraduate education has been less studied than other educational transitions. One example is Forde & Gallagher (2020), who examined expectations of healthcare students before their online postgraduate certificate course: students looked forward to the achievements of study but had anxieties over time management, use of technology and their ability to study. The paper did not discuss what students thought would be expected of them, or what the faculty expectations of them were.

Technological preparedness can be low at the start of an online course. Stocker (2018) found that masters students enrolled on a nursing degree lacked the digital literacy skills required for their online course. To gain the necessary technological skills, Posey & Pintz (2014) state there is a need for 'comprehensive orientation for online learners' which should involve guided use of technology and signposting to access the resources required in the students' learning. Further information technology (IT) skills will develop provided practise is available through course activities.

The academic community's expectations of masters students include an advanced knowledge of the chosen subject, with the ability to carry out subject-specialist independent research. This differs from doctoral research as they are not required to contribute original *new* knowledge, but the subject knowledge and autonomy of research carried out are at a level above undergraduate. The masters identity includes ability to study independently, display critical thought and to undertake a research project relevant to their topic (QAA, 2014). Criticality is not attained instantaneously, and uncritical acceptance is said by Petty, Scholes and Ellis (2011) to be the norm at the start of a masters course. Time management, academic writing and communication with others by various means are other skills required by successful researchers. Hoffman & Julie (2012) showed these skills were lacking in campus-based masters students despite their successful undergraduate degrees. Those students were able to access on-campus help for skills development: a resource not available to online distance masters students. Online students require the same types of academic support as on-campus students, but these are also required to have flexibility and availability entirely online (Forrester, Motteram, Parkinson & Slaouti (2005), citing Krauth (1999)). Posey and Pintz (2014) developed a compulsory online resource to provide students with an academic skill set.

However, considering academic skills alone does not guarantee success at masters level as development of academic skills and new knowledge does not add up to the sum of masters student identity. Students' prior and present experiences, culture and motives add to 'being' masters students (Edwards, 2017 p9). These facets need consideration when enabling students to cross the boundary to the academic CoP. Lave and Wenger's CoPs

(1991), places where collaborative learning for people with shared interests could occur, are complex in reality. Wenger-Traynor & Wenger-Traynor (2015) describe a 'landscape' of practice, because in a social context, everyone inhabits more than one CoP. CoPs are not necessarily physical/geographical and can include virtual CoPs (Dubé Bourhis & Jacob, 2005).

In an online environment, constructivist learning can be encouraged by developing a CoI. Here, teaching presence coincides with social presence and cognitive presence (Garrison, Anderson & Archer, 2000). Teacher presence is highly important for student success (Fendler, 2021). Forrester et al. (2005) found the social aspects of online courses important for transition to masters. The collegiality of on-campus students is not available to those online unless the social side of a CoI is created via synchronous and asynchronous sessions with appropriate input from course tutors (Salmon, 2007). Cognitive presence in the CoI is provided by the online resources.

There is an intersection of the CoI with the academic CoP at masters level. The combination of social, cognitive and teacher presence acts to develop the self-efficacy of students as masters, enabling them to join the academic CoP (Shea & Bidjerano, 2010). Enculturation of new online masters students into the academic CoP is likely to be a problem if they are already considered 'expert students' by the academic community. This study catalogues action research using the student voice for the development of resources, practise and social interaction with, and for, online MRes students to develop a CoI, to enculturate them in an academic CoP.

2. Method

2.1 Action Research in Managing Students' Expectations

The study reported in this paper took place in the United Kingdom where students were enrolled in an online programme. Following programme evaluation in a survey by the first cohort of MRes students, studying their taught modules entirely online, it was apparent that student expectations required management. As a response to this problem, to ensure new online masters students were aware of faculty expectations of study at masters level, qualitative research as action research cycles were carried out annually to investigate student expectations. Actions in each cycle provided subsequent cohorts with new resources and activities, developed by reflecting on the previous student cohort comments in online interviews.

Action research, as utilized here, is defined as:

"a form of self-reflective enquiry undertaken by participants in social (including educational) situations in order to improve the rationality and justice of their own social or educational practices, their understanding of these practices, and the situations in which the practices are carried out." (Kemmis, 2007 p168)

For resource and teaching evaluation, along with further development of practice of the researcher-practitioner (the course tutor), action research is an appropriate choice of methodology. In this case it is used to determine the practitioner's development of future resources and actions used to manage student expectations and encourage student transition to masters' identity, beyond those tools already available.

2.2 Participants

The participants in this study were online MRes students from each cohort between 2013-14 and 2017-18. Many online masters courses are taken part-time entirely at a distance; this MRes was atypical. It was the product of a partnership between 3 UK universities, each university providing 20 credits of taught courses, taken as an online distance course by students registered at one of the three universities on the full-time programme. Bioethics and statistics training, as well as the project, were taken on-campus at the university where students were registered. It was variable whether participants enrolled on the programmes straight from undergraduate degrees or whether they had been in workplaces prior to becoming masters students. Many, if not most, wished to continue to doctoral study when they achieved their masters degrees. The author ran one taught online 20 credit course in one of the universities, providing access to each annual student cohort in the study: the purposive (and convenience) sample. This was a niche programme, developed at the request of funding councils, with low student numbers (up to 12 per year), so whole cohorts were invited to take part.

2.3 Data Collection

Ethical approval was received before each action research cycle. Informed consent to participate in the study was obtained before students were questioned on a voluntary basis in online interviews. The first cycle followed a course evaluation by emailed online survey, sent to all course participants in the 2013-14 cohort who were deemed to have given consent for the study by taking part in the survey. In all the other cycles, whole cohorts of

students were emailed with requests to participate in group interviews within the course virtual classroom (Adobe Connect®). At the start of each group interview, (or single interview in one case (2016-17)) explanations of the study were given and consent received with the option of withdrawing from the study at any time. The group interviews were for the researcher-practitioner (the author) to listen to the student voice evaluating current resources and suggesting further interventions to help transition.

The feedback and evaluation survey of the inaugural course provided an understanding of the 2013-14 cohort's online learning experience by asking for advantages and disadvantages of studying online, the most positive and negative experiences during the MRes and suggestions for course improvement. Reflection informed changes to the induction sessions and a slight redesign of course materials with evaluation of this intervention carried out by interviewing those who used it: the 2014-15 cohort.

It was expected that the action research cycle would complete at this point, but observation of 2014-15 cohort of students showed further resources were required for skills development in preparation for research. To determine these requirements this, and subsequent, cohorts until 2017-18 underwent recorded interviews online in the virtual classroom lasting approximately one hour, followed by resource development by the tutor. Interviews consisted of three semi-structured questions to start discussions:

- How did you expect studying for the MRes to differ from studying in your undergraduate degree?
- How easy or how hard did you find the online environment to work in compared to conventional teaching?
- Can you think of ways we could have made the transition to an online Masters level easier for you?

These questions were also emailed to students who wished to participate in the study but were unable to attend the sessions. The questions were informed by a wish for students to participate in course development as well as a desire to improve how it was run.

This method of data collection was deemed appropriate: Hammersley (2003) considers interviews to be extremely useful as a data collection tool when validated by other methods such as observation, which occurred in these groups due to researcher involvement in teaching. However, researcher involvement in teaching did have a downside of being too close to the students as an authority figure over their degrees, biasing their comments. Interviews suited the size of the study; cohorts were very small due to the specialised niche area of the degree, resulting in small numbers of students on the course, and as study participants.

2.4 Data Analysis

Interviews were recorded and transcribed. Following upload to NVivo (QSR, 2016) transcripts were thematically analyzed. Transcripts from interviews from each year group were read and re-read, interrogating them for recurring patterns in the student commentary data. Reflection on these patterns lead to the emergence of themes, detailed in the results section 3.2. These covered areas which the author considered required action in the development of further resources for subsequent cohorts, as well as action to develop the online masters learning community further. Subsequently, for each cohort, changes were made to the course in the form of fresh online resources and seminars, sign-posted to students in subsequent cohorts. Their utility was discussed in the subsequent interviews to complete the action research cycle for each cohort.

3. Results

3.1 Participation

The evaluation survey received 11 responses out of 12 students surveyed at the end of the taught section of their programme. For later online interviews with each cohort, whole cohorts were invited to participate, also at the conclusion of the taught sections. Not all students were able to attend due to work commitments and project work being undertaken. As an alternative to interviews, two 2014-15 students provided written answers to the questions when they were unable to attend. In 2016-17 only the student-staff committee student representative was available and interviewed so other students were emailed the three interview questions for electronic replies; in 2017-18 only four of the cohort were available. Figure 1 shows numbers in cohorts and what actions were taken on reflection of the student comments each year.

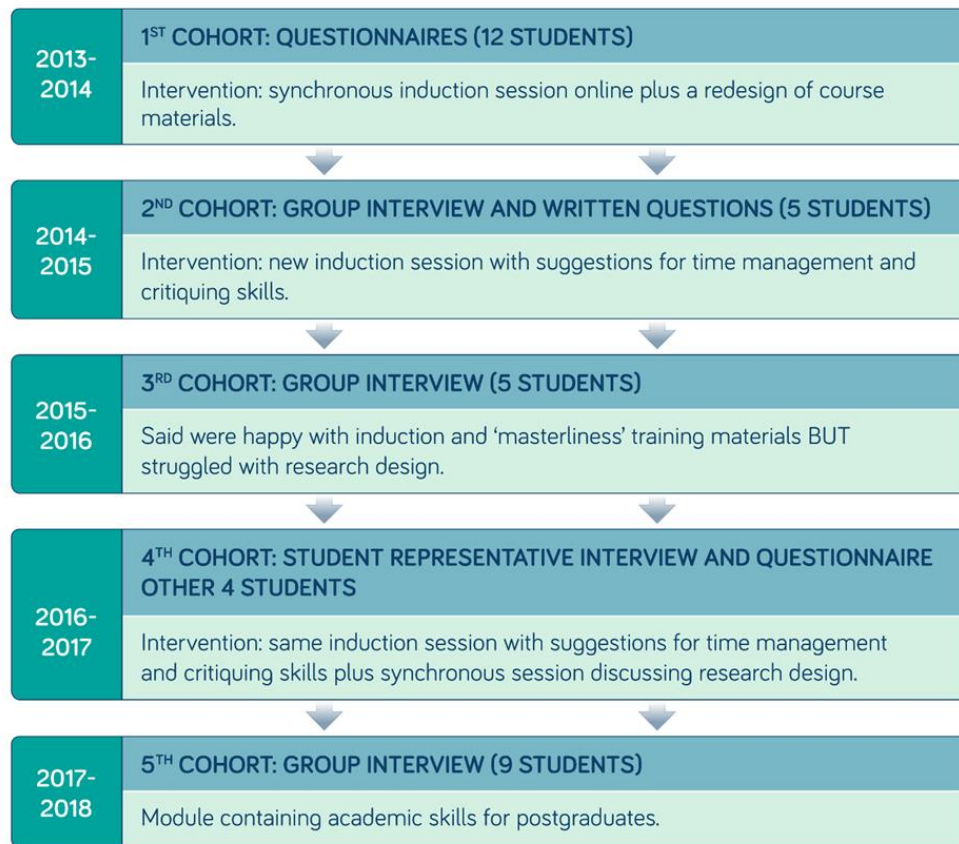


Figure 1. Action research cycles: study timeline, student numbers, data gathering type and action responses to the students' comments

3.2 Cohort Comments

During thematic analysis of the comment sections of the survey, written answers to questions and transcripts of the interviews were coded into recurring themes. The themes included academic skills (especially time management and critiquing literature), challenges of working online (including contact with others and technology problems), level of study, student attitudes as researchers, student expectations and isolation. These themes are discussed within relevant cohorts, as are reflections guiding subsequent actions.

3.2.1 Cohort 1 2013-14

The first, 2013-14, cohort of students generally enjoyed the course, finding the flexibility of online learning suited them. They found the innovative ways of presenting material more stimulating than traditional lectures. However, they struggled to gain connections with fellow coursemates in the online environment, with a typical comment showing isolation was felt: "Main disadvantage is that I could not really built rapport with colleagues and sometimes I felt I need to see the people face to face to discuss topics". Workload was also a problem with time to complete tasks difficult over the whole programme.

In response, the action was to design a synchronous induction session geared towards managing student expectations. This ran for the 2014-15 cohort. Course re-design implemented limits on numbers of weekly essential journal readings (comments deemed article numbers excessive for the time available by the first cohort and some faculty staff). Occasional online synchronous Journal Clubs, for student presentations critiquing journal articles, were developed for one module.

3.2.2 Cohort 2 2014-15

Despite the 'managing expectations' synchronous session online during induction week, there were still problems managing the workload: "I don't think there is anything that can prepare you for that amount of work." There was the expectation that the workload would be greater as one student commented: "I thought it would be more intense than undergrad". The expectation of independent research was considered by this cohort of students:

“...more responsibility that we have to take during our masters” “we start being more independent so that’s a bit harder”.

This cohort did not find the online classroom challenging; one student commenting: “... the environment of the virtual classroom it doesn’t stop your communication, it doesn’t hinder anything”. Technical problems were uncommon: “Occasionally we had technical issues which made things quite difficult, but they were fairly infrequent.” Flexibility of online learning was positively appreciated by an international student, who participated in an online seminar whilst travelling home, showing dedication and good engagement. However, screencasts did not suit all students with one struggling to take notes when these were of any length.

Academic skills of time management and critical thinking were only vaguely considered by students. Suggestions for developing time management skills were added to ‘managing expectations’ sessions, with links to online instructions for critiquing research articles provided for the next cohort.

3.2.3 Cohort 3 2015-16

This cohort of students showed confidence in their expectations of masters level study: “I already knew what to expect from myself more or less. I knew it was a step up”. Realization of independent responsibility for their work was apparent: “I think it’s more our kind of responsibility... obviously it’s a qualification you know in a subject”.

On developing criticality for reading journal articles, the resources were useful, and the importance understood: “I think it’s a useful skill you know especially for practice for analyzing critically medical journal articles.”

Learning in an online mode was without problems: “I think the induction during the first week was really helpful to kind of settle you into how online learning really works. After that it was really OK.” This suggests a good induction to the programme was present; these are essential for online learning.

Similar to the previous cohort, some of these students found watching screencasts challenging: “... too much screencasts... I was just overloaded watching the screen too much”, showing care was needed in the design of materials. Isolation was still present, one student commenting: “I think I did find it sometimes a little bit lonely”.

Although this cohort were content with resources available, coursework showed critical thinking skills, particularly involving research design, needed development, suggesting cognitive presence was not fully present in this online community (Garrison, 2011, p43). In response, an online weekly, rather than occasional, Journal Club, was scheduled for students to present their article appraisals, including study design. In addition to practising a researcher’s skill, subsequent discussions could also relieve feelings of isolation, increasing engagement. A synchronous seminar on research design was scheduled early in the course timeline, separately from the induction week. This decreased isolation through interaction, whilst developing academic skills as part of the research culture.

3.2.4 Cohort 4 2016-17

The student representative interviewed on behalf of the cohort had given little consideration to what masters study entailed: “I hadn’t.....before I arrived. I assumed it would be very similar to undergrad.” The level of working and the development of independence was unexpected but relished: “This one felt like there was a lot more work for me to do here it’s get the work done yourself, get to know the material yourself.... which is fine”, showing the attitude of an independent researcher.

Questioned on critical thinking, the student commented: “I do remember... there was a point where you did explain it to me, though I felt it got lost a bit over time.” The idea of academic skills as part of the masters identity was not grasped immediately: “Well we did have some stats lectures in the induction week here.... and they were talking about critiquing papers as well and I did think a few weeks later, oh this is quite important isn’t it?”

Synchronous online Journal Clubs enabled communication in person, which was preferred, including by those replying to questions electronically: “I think that’s the best way of doing things, someone in person you can talk to.” Engagement, with teacher and social presence is the key to the success of synchronous sessions, demonstrated here.

Informed by this cohort, an online module introducing masters study and containing resources for the development of academic skills was created, linked to by the MRes course, freely available throughout the year. Containing activities for practise, it is not mandatory as some students may need less instruction on skills than others, according to their education history. Content is shown in figure 2. Designed for students to ‘dip in and out’, the module showed students of varying abilities a scaffolded introduction to the practices of the research

community and how masters (in the sense of experts) in the community carry out the skills required to conduct and disseminate research, enabling full participation in the academic CoP (Lave and Wenger, 1991, p95).

Figure 2. The online academic skills course for masters students

3.2.5 Cohort 5 2017-18

This cohort had varying ideas on the level of study for masters versus undergraduate degrees, although generally they had greater knowledge than earlier cohorts. One commented: “I did know before it was gonna involve more critical thinking.” Another student described their expectations compared with undergraduate study: “I think it comes hand-in-hand with the depth of knowledge required.... at undergrad I think you take a lot of things on face value.”

The academic skills module was well received, showing good engagement with the materials: “the study skills part I found it all right, I liked the critiquing part”; “.... useful for organizing the presentation..... I also used it for other points such as literature search and writing and presenting to an audience. I found those useful as well as they gave.... good advice.” The cohort had developed their ideas about the conduct of a researcher, particularly within the realm of critical thought: “You need to form an argument, you can’t just state things like you could before.” “Yeah, you have to think beyond just accepting stuff and following a line somewhere...”.

Further ideas for the academic skills module were suggested: “I think if you annotated an example, it would be good, rather than just explaining the steps if people could see an actual example of a what constitutes a good introduction etc.” This is also suggested by Boud (2017) in the context of assessments; it could work well in learning activities: examples of what ‘good’ looks like are very helpful to students.

The academic skills module has since been available for subsequent cohorts and for other masters programs within this Graduate School with other topics (basic statistics) to be added soon. The specific skills mentioned are practised as formative activities prior to assessed assignments, with commentary from others collaborating on the same course to provide social and teacher presence in this online community. The development of the module

and practice of its activities has provided a resource for the identity development of the students to help them 'becoming' masters, in parity with the resources available via the library to campus-based students.

4. Discussion

Students were not necessarily aware of the academic community expectations of masters level study when they started their courses, and their own expectations did not reflect the reality of masters study, other than it would be 'more intense' than their undergraduate degree. Reflection on their comments resulted in many resources, including an online course being developed, which they found helpful and expressed ideas about further development of resources. These resources were designed to provide them knowledge and practise of the skills required to become members of the academic CoP at masters level, as well as engagement with their specialist subject matter as masters. In addition, some students found the online experience isolating. Isolation is not unusual in online courses (Tullo, Newton & Clapp, 2012). To mitigate isolation, transition requires agentic action with course tutors and faculty staff developing a CoI (Garrison, 2011 p15). The increased teacher and social presence in the CoI in later cohorts acted to mitigate the isolation of studying online as well as enculturating students to the academic CoP.

4.1 Student Expectations of Masters Study

Cohort 2 confirmed Tobbell et al.'s (2010) assertions, having little idea of faculty expectations for masters level study. Time management skills were problematic; known to be a problem in postgraduate students, there are several causes, including fear of failure (Rakes & Dunn, 2010, citing Solomon & Rothblum, 1984). Rakes and Dunn (2010) also mention procrastination increases in an online environment. Time management is essential for all members of the academic community, though this may not be resolved even as a full community participant. The online course later on provided ways of looking at time management skills without being prescriptive.

The masters level expectations of Cohort 3 were greater than that of cohort 2, but they did not have the academic skills to act on their expectations; the skills course would have been ideal for them. Whilst this cohort assumed that masters was a 'step up' from their undergraduate study, the course content failed to address subjects such as research design explicitly, with the academic expectation that students would develop this knowledge from their reading. As this clearly did not happen, the research design seminar and Journal Clubs were subsequently run. Discussion of others' research studies in Journal Clubs could be considered an 'authentic learning context' (Schulze, 2009), which can improve research methods training.

The cohort 4 student interviewed showed that as faculty we should be making the requirement for developing academic skills much more explicit, rather than leaving students to slowly absorb their importance. Student behaviour in this study was similar to students in the Petty, Scholes and Ellis study (2011), with uncritical acceptance at the start, requiring development of new ways of thinking to cross the boundary to masters.

For cohort 5, the message about competency in academic skills had been absorbed by the time of the interview, with all students engaging, and at least one engaging well, with the online module. It is important that the students can practise their new-found skills. Practising the activities which included literature reviews, critiquing journal articles and designing research studies helped the students not only achieve academic skills, but also join the academic CoP at masters level.

Student responses to the online mode of learning showed that technology generally held no problems for them. Subsequent (as yet unpublished) research from this Graduate School showed students are generally confident in the use of technology for learning and it is faculty who are less confident using technology unless they have received comprehensive training.

4.2 Social Presence

Clearly the CoI social presence had not been strong for cohort 1, despite some social and teacher presence, synchronous in seminars and asynchronous through the discussion boards, as recommended by Garrison, Anderson & Archer (2000). Social aspects of online study require greater consideration in the design of learning activities than those in the first iteration of the MRes. A sense of belonging to the community is required for optimal learning and needed more structured interactions, be they student-student, or student-staff. Increasing synchronous session numbers might have encouraged greater social presence, resulting in improved learning and less isolation (Garrison & Cleveland-Innes, 2005). Mediating ways of working together with more collaborative activities, as described by Salmon (2007), would have strengthened the CoP as well as the CoI. Students have stated that they work better in communities online in a previous study (Delgaty, 2017).

Similar to cohort 1, cohort 3 showed isolation was a recurring theme for the MRes students despite the measures previously taken. Engelbrecht (2005) confirmed isolation is problematic in the change to online course delivery

where one student stated: ‘we do miss the contact with fellow students and course facilitators’, mirrored by comments of the MRes students. Social isolation during online learning has been a problem during Covid-19, and Romero-Ivanova, Shaughnessy, Otto, Taylor and Watson (2020) described a student’s commentary on the excitement of seeing her friends in collaborative sessions on Zoom, helping to mitigate the isolation of emergency teaching. Socialisation needs to be maintained throughout the course, with the tutor keeping students engaged with each other as well as with the tutor as social and teacher presence, aiming to increase the sense of community (Salmon, 2007). Synchronous Journal Clubs and seminars rather than just recorded lectures were found to be useful to increase the sense of community, and collaborative activities such as developing a wiki addressed the issues of isolation in later course iterations.

4.3 Study Limitations and Strengths

MRes student numbers were small due to the very specialist nature of the course, totaling 38 online students altogether throughout the cohorts, making it questionable there were enough students interviewed to provide a true picture on student expectations in boundary crossing to masters. However, some of the study findings are also corroborated by other research, although in on-campus settings, such as Tobbell et al. (2010), suggesting the small numbers interviewed were enough to obtain a picture of student expectations.

Having a teacher/researcher was a study weakness, despite surveys and interviews being conducted subsequent to marks being made available to avoid participant bias. Ideally a non-teaching researcher would have conducted interviews. Interviewer bias was avoided by asking open questions, but the researcher-practitioner in action research imposes some of their own values on the study, and the single researcher had no other researchers to triangulate the data for increased validity.

In action research the researcher develops their own identity as a researcher-practitioner throughout the process of gathering data and devising actions (Vetter & Russell, 2011). This has been the case here as the researcher brought her own history of being a former online masters student and currently as a teacher to the project, before she developed further. Firstly, as a practitioner-researcher with greater understanding coming from practice and collaboration with students and other faculty as part of the academic CoP. Secondly, becoming more contemplative of student behaviour, self-evaluating of teaching practice, and the help required to contribute to developing identity as masters.

4.4 Implications for Practice

This study showed that for masters students online, academic skills teaching is essential as part of masters identity development. This needs online resources, with constant reminders in the form of practise. Isolation can be reduced, and integration into the academic CoP encouraged, by interaction with established researchers throughout the course, who could share their experiences. As an example, in the MRes studied, one assessment, popular with the students, involves writing a research grant proposal. Scaffolding of this with faculty discussing their experiences of grant proposal writing increases student knowledge as well as enculturing students as researchers, gaining knowledge of the difficulties.

Practising activities in a ‘safe’ environment is useful for students transitioning to masters. Greater effort to socialize students at the induction to the course could result in greater trust for knowledge sharing (Usoro, Sharratt, Tsui, & Shekha, 2007), concurrently increasing engagement within the CoI, reducing isolation. Facilitation by tutors in online learning can make the difference between student passivity or engagement (Stocker, 2018). Collective knowledge in a CoP is greater than that of individuals and increases with good facilitation (Johnson, 2001). That is not to say that masters students need to be ‘spoon-fed’ to develop their own independent research identity, but they require the encouragement in the form of teacher presence as well as the social and cognitive presence. These factors need to be considered in the development of emergency teaching during times where courses need to migrate online. Development of the masters community is also an essential consideration going forward where increased numbers of resources are placed online in a more blended learning approach, to ensure students are able to transition to this level of study without feeling isolated.

5. Conclusions

5.1 Study-specific Conclusions

The action research in this study has added to knowledge of transition to masters online, showing that whilst students in this MRes expect increased workloads compared to their undergraduate days, knowledge of the skills required to become an independent researcher as part of a masters student identity was low. The online resource development was successful in enabling masters students to join the academic CoP. Feelings of isolation occurred despite online collaboration and synchronous activities; these activities needed to be increased so that

working relationally with others adds to a smooth transition to masters. There were few technical difficulties with the transition to online suggesting competency with technology from undergraduate teaching and use outside academic communities.

From interviewing successive cohorts of MRes students and reflecting on their comments it was clear that they formed a CoP along with the researchers who were teaching them. Using Lave & Wenger's (1991) CoP and Garrison, Anderson & Archer's (2001) CoI as frameworks to theorize this action research has been useful to consider how these students cross boundaries from undergraduate to online postgraduate study. Further research could include evaluation of the contribution of practise of online course activities to the development of masters identity in the academic CoP.

5.2 Wider Conclusions

This study has wider implications for masters courses globally. Whilst generalizability was neither the intent nor the aim of this study, nor would it be coherent with the methodology chosen (Phelps & Hase, 2002), the findings are likely to be transferable to other institutions. Student expectations need management, along with education on the academic community's expectations, whether the students are online or on-campus. The development of online resources for masters students has become the norm during Covid-19, and the future is said to hold more blended learning, so resources online are needed (Universities UK, 2021). This study has shown the importance of online academic skills training provision to students at a distance, and this is likely to be of use to campus-based students in addition, due to the flexibility of access. A knowledge of what the academic CoP expects of students needs to be made explicit, and can be made clear during programme induction, with the subsequent practise of the skills enabled with teacher presence, as eventually occurred in this study. Provision of resources needs to be planned during curriculum design, a point that was omitted at the start of this MRes. Synchronous sessions, especially during induction, can increase the social presence in the online masters community, decreasing isolation and increasing belonging to this CoP.

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