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Social Media Networks and Community Development in Work-based Undergraduate Students

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ABSTRACT

The purpose of the study was to explore how students on two related work-based degree courses with limited opportunities for face to face interaction used social media platforms to support their experiences and learning. The students involved work as teaching assistants in a range of mainstream and special schools in the East Midlands and attend classes one day a week. It was noted by tutors that students made frequent references to using various social media platforms for sharing student-to-student information relating to the taught sessions or assignments in preference to the university's virtual learning environment. To investigate this phenomenon, a case study approach, using focus groups and a paired interview, was adopted. The entire student population on the courses was invited to participate, so the sample was self-selecting and a total of 11% of the students volunteered, participating in either a focus group discussion or paired interview. The study found that students made extensive use of social media platforms, mainly Facebook and Whatsapp, for academic and affective support. Students found this to be an effective way to keep in touch with one another away from university, to share resources and experiences and felt that it helped with their identity as a higher education student.

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Introduction

A common assertion is that the nature of learning and learners has and is changing with the growth in technology over the last thirty-five years. Concepts such as 'the Net Generation' (Tapscott, 2009) and 'Digital natives' (Prensky, 2001) are common in literature, discussing the ways in which current students access information. There is an assumption that students starting at university will already have skills and practices relating to learning and technology (Jones & Healing, 2010, p. 344). This is not always the case. The research was carried out at a university in the East Midlands in the United Kingdom, with non-traditional, mature students who were employed supporting learning and teaching within educational organisations. Although these students tend to have a range of job titles and responsibilities, the term 'teaching assistant' will be used for the sake of brevity and clarity.

The researchers had previously worked predominantly with pupils in statutory education, where the structure of the week in terms of contact with pupils in these settings contrasted significantly with the structure of the Foundation Degree and Bachelors in Arts top-up courses. Students enrolled on these courses attend university classes one day a week throughout the school year, enabling them to remain in employment for the rest of the working week. The courses consist of mandatory modules only and the cohort groups remain static, apart from the occasional early withdrawal or direct entry. Consequently, these students are likely to be mature (over 21 years) and are unlikely to have studied in the previous few years.

In 2014–15, researchers noticed that some groups were making use of social media platforms to remain in touch with one another outside of their 'university day', and began to recommend it to all. Over the next two years there appeared, anecdotally, to be a change in the way most students were using these platforms, with some groups even using them in class to supplement the lecturers' input. A defining event for the researchers was when one mentioned a recent research article that had been published but which was not included in the references for the taught session. They undertook to put a link to the article on the University's virtual learning platform where students would be able to access it, along with the other materials for the session. However, whilst the session progressed one of the students searched for the article and placed a link to it on the group's 'Whatsapp' chat. This innovative and positive use of social media enabled the students to peruse the article during the session and incorporate their initial impressions into discussion of the topic, enriching their learning experience.

Researchers had a number of informal conversations with students about the scope of their use of social media platforms in relation to their university experience. At the same time, the University was developing a more blended learning approach using digital technologies. In light of this, the researchers were interested to discover the extent to which students were using social media platforms to support their learning, the ways in which they were using it and whether there were any strategies that could be more widely applicable to the student population to support engagement, retention and achievement.

Conceptual framework

The use of social networks by university students and by early career professionals for support, sharing and learning and the ways in which they employ different types of social media within those networks are under-researched areas (Morosanu et al., 2010; Garcia et al., 2015; Eid & Al-Jabri, 2016; Kelly & Antonio, 2016, O'Keeffe, 2016). One area where little research seems to have been done is the use of social networks within work-based education (Brodie & Irving, 2007). This a niche area of research but changing practices within higher education such as the growth of degree apprenticeships in the United Kingdom may make it an area of increasing significance.

This conceptual framework considers the place of work-based learning within mass higher education. It discusses community formation and development among university students and the importance of the role played by social support for these students. It considers how social networks and communities formed among work-based university students are both similar to, and different from, those formed among other groups of university students and among early career professionals. It considers the role played by social media in supporting and developing supportive networks and how unofficial "back channel" networks are used by students both for support and for learning.

Massification and work-based learning

Massification has expanded the higher education sector and has led to an increasingly diverse student body and range of communities (Andrew et al., 2008; Altbach et al., 2010) Universities are currently in a time of rapid change as deeper commercial accountability to students has led to a culture which requires student degrees to have extrinsic value leading toward employment or further study (Morley, 2018). Increasingly, educational professionals are examining ways in which the student learning experience can be enhanced in a push towards imbuing students with learning

gain and the "know-how" skills increasingly demanded by industry (Godrich, 2017). One educational approach pertaining to student attainment of such skills comes from work-based learning methodology (Brodie & Irving, 2007). Work-based learning enables students to combine theory and practice, facilitating opportunities to gain and articulate the necessary employability skills needed for their future careers (Morley, 2018). However, for the attainment of such skills to be successful, students must first traverse the ever-changing landscape of higher education. Work-based learning involves a significant amount of time spent away from the classroom environment and student-teacher dynamic typical of higher education institutions. Such a move away from traditional forms of teaching and learning necessitates a different approach to learning (Gray, 2015), one in which building strong connections and developing a learning community plays a significant part.

Community development in work-based learners

The need for strong connections is not unique to work-based learning. Connecting with others in an educational environment is a key component of effective learning (Tschofen & Mackness, 2012; Garcia et al., 2015). Any students embarking on higher education courses might find themselves in a liminal state as the norms with which they are familiar fall away, and an unstructured state of community forms. In such states, the need for communitas – "usness", the spirit of a community, may be acute. As Turner (1969, p. 372) puts it, "Communitas emerges where social structure is not." Comradeships formed through the shared experience of being new students on a course may develop as ethical norms and standards become established and adapt to new situations presented as the course - and university life - progresses (Wilcox et al., 2005). Whilst work-based undergraduate students share such elements of the situations of 'traditional' students, there are important differences. They may have regular face-to face contact with peers and tutors, but it is limited; a characteristic shared with distance learning students. Furthermore, lack of cultural capital can lead to them feeling that they are imposters in higher education (Hamilton, 2017). Such factors have potential for isolation and loneliness which can lead to poor retention (Brodie & Irving, 2007) and are similar to factors causing early-career teachers to elect to leave the profession (DeWert et al., 2003; Mercieca & Kelly, 2018).

Lave and Wenger (1991, in Andrew et al., 2008) identify learning from a social network as key to situational learning. Work-based students experience situational learning in that it is context-specific: they are, to paraphrase Resnick (1987, in Andrew et al., 2008), learning on the job and from the job. Thus, a community based around a social network may enhance their learning as they are working with common

purpose based on situational knowledge (Wenger et al., 2009) which may result in "informal and unintended learning benefits, due to their experiences with others on a similar path" (Brodie & Irving, 2007, p. 12). Developing bonds can also assist in shaping people's self-identification and how they identify others. (Hoffman, 2006). This again points towards the benefits of developing strong connections with others in a similar position, as self-identity as a student may be difficult to reconcile with non-traditional forms of education (Hamilton, 2017). With work-based learners facing pressures and commitments both from their employment and from their studies, having strong connections with others completing the same educational journey may be beneficial for developing a shared understanding of differing commitments and pressures at different points within the learning process (Wilcox et al., 2005). It may lead to the formation of communication networks which have elements both of a Community of Practice and of a Professional Community. Kupferberg (2004) argues that professional identity begins to develop a long time before an individual enters a profession; work-based students may identify themselves within a discipline group and the communities that they form may thus have commonalities with those formed by early career professionals such as teachers or nurses although the communities are time limited and their success is dependent on member engagement (Andrew et al., 2008).

Developing connections in an academic environment in which minimal face-to-face encounters occur could be viewed as difficult (Dunbar, 2015). Indeed, while discussing the importance of such communities, Shackelford and Maxwell (2012, p. 231) explain that, "the ability to share background information and learn about fellow students [is] critical" to building a sense of community. While Shackelford and Maxwell's research primarily discusses community building from an online learning perspective, parallels can be drawn to both distance learning and work-based learning due to their non-traditional approach to education, concerning the amount of face-to-face interaction time students receive both with one another and their instructors. Indeed, building such communities is seen by the literature as instilling a sense of support within students at an academic and personal level (Wilcox et al., 2005; Shackelford & Maxwell, 2012; Garcia et al., 2015; Bilgin et al., 2017). Ultimately, the literature hints at the potential for high student success and retention rates in non-traditional higher education environments if appropriate support is established.

Group interactions are often viewed within the literature as key in reducing pressures and in establishing support. Bilgin et al., (2017, p. 179) for example, note that, "through participation in teamwork and peer feedback, students may learn about a broader range of skills and knowledge than they would on their own". Other traits of group work which lend themselves to the notion of garnering support from peers are viewed by the literature as decreasing student isolation, improving communication (Shackelford & Maxwell, 2012), developing a sense of trust between classmates and

encouraging positive relationships between students (Rovai, 2004, in Shackelford & Maxwell, 2012). Ultimately, Shackelford and Maxwell (2012, p. 231) suggest that once a community of study has been established between learners, members can "construct understanding, and question and clarify content through discussion with other learners", therefore offering an informal sense of support during the learning process. However, House (1981) suggests that rather than purely academic support, social support should also be viewed as the key to educational success. As "many younger students perceive their first years as being primarily about their social lives" (Wilcox et al., 2005, p. 712), understandably, emphasis is often placed upon student to student relationships, which can become a key source of support and has been found to have a significant influence on whether students decide whether to remain at university or drop out (Wilcox et al., 2005). Similarly, Shackelford and Maxwell (2012, p. 240) discuss the importance of students having "peers with whom they can enter into a mutually supportive relationship as they struggle to learn and manage their responsibilities". This can be beneficial as it "provides a sense of belonging and can also help students when they face problems" (Wilcox et al., 2005, p. 718), and ultimately provides a different type of support, due to a shared experience, than could be gained from others outside of a student's immediate academic discipline.

The role of social media in community development

Social media is integral to today's students. Whilst face to face interaction is still an important factor in social cohesion (Haythornthwaite, 2001), online contact is a social glue which helps new students settle into university life, and, consistent with the forms of social peer support identified by House (1981), it continues to support them, with increased amounts of emotional support, problem solving and assignment-related discussion as a community develops (Sabki & Hardaker, 2013, in Garcia et al., 2015). Anyone not engaging with social media from the outset is likely to find themself on the periphery as groups form (Haythornthwaite et al, 2000; Borge & Goggins, 2014; Garcia et al., 2015).

The growth of online environments means that the very concept of community must be reconsidered (Haythornthwaite et al., 2000; Urry, 2000; Sassen, 2006). The boundaries between offline and online communities are increasingly blurred. Wenger et al., (2009) argue that social media sites can be described as "digital habitats" (p. 37), and Wesley (2013) that networks based around social media can be seen as communities of practice. Dunbar (2015) found that interaction rates in online social networks of students are, "virtually identical to those observed in the offline world" (p. 7). Munoz & Towner (2011) suggested that online relationships reinforce offline relationships, whilst Trust and Horrocks, (2017) found a reciprocal relationship between face to face

engagement and online engagement in a community of practice and Haythornthwaite et al., (2000) found that students re-invented offline community relationships online.

Online Interaction is key to the development and continuity of online networks (Shackleford & Maxwell, 2012; Haythornthwaite, 2019), and offline interaction (Dunbar, 2015) also plays a role in strengthening them. The greater the learner-to-learner online interaction, the greater the sense of community is likely to be (Shackleford & Maxwell, 2012). Such interactions are important in developing social reinforcement, collaborative learning and information exchange and can add social capital. The three elements are intertwined: for the network to become a learning community rather than just social, the social presence and the cognitive presence must coalesce (Anderson, 2003). The sharing of personal experiences shows how taught content relates to individuals lives or work-based experiences (Shackleford & Maxwell, 2012) and sharing resources makes students form stronger relationships with their peers and become more involved with the group (Stepich & Ertner, 2003). The development of social skills through social media networks is important to student success (Junco, 2015)

Back channel communication networks

Social media is also being increasingly deployed by universities both to develop a sense of belonging amongst students and as a space for learning with varying degrees of formality and informality (Greenhow & Lewin, 2016) as the institutions seek to improve retention and success (Thomas, 2012; Masika & Jones, 2015). There is uncertainty from tutors and students as to whether social media should be used formally by universities (Irwin et al., 2012; Prescott et al., 2013; Purvis et al., 2016) and conflicting evidence of the benefits of such use both in formal learning (Madge, 2009) and in building a community. Whilst some studies find that students see tutor presence as important for developing interactions and learning (Lewis et al, 2005), motivation and cohesion (Garrison et al., 2003; Masika & Jones, 2015), others argue that perceptions of a culture of surveillance in such online activities can inhibit learners from interacting and building community (Bayne & Ross, 2016; Stone & Logan, 2018). The same caution may be evident in the use of online networks by teachers (Kelly, 2019). Evidence suggests that, if there is already good connectedness within a group (Bouchnik & Deshen, 2014; Kelly & Antonio, 2016), "back channel" communication through informal student-generated networks may emerge. Such networks can have a significant impact on developing and sustaining group cohesion, adding social capital and supporting learning. (Uusiautti & Maata, 2014). Initial impetus for network formation can come from course leaders as well as from students (Stone & Logan, 2018), but the back channel groups thrive because they are beyond classroom and beyond tutors and thus allow students to communicate in a 'safe' environment; one which is not being surveilled by tutors (Kearns & Frey, 2010). They provide a freedom of structure which enables students to ask questions which they might have been inhibited from asking had tutors had a presence in the network and allows emotional support to be sought and given (Stone & Logan, 2018) and for information to be freely exchanged (Egan, 2018). There is, however, a potential for distractedness with back channel networks (Bouchnik & Dreschen, 2014; Greenhow & Lewin, 2016; Stone & Logan, 2018). Stone and Logan noted that students switched off their WhatsApp network in busy times because of an overload of messages and Egan (2018) found that teacher training students disabled Facebook for the same reason.

Informal back channel groups formed by students on profession-specific courses such as nursing (Ferguson et al., 2016) and teacher training (De Wert et al., 2003; Egan, 2018; Mercieca & Kelly, 2018) may serve a purpose beyond the end of the course. As the graduates begin their early professional careers, they once again find themselves in a liminal situation and seek communitas with others on similar situations. Studies of early career teachers suggest that these established back channel groups may be a significant factor in them remaining in the profession (Mercieca & Kelly, 2018). They can feel isolated in the classroom and in the school (De Wert et al., 2003; Mercieca & Kelly, 2018) and may reach out to their online support network of former student peers now in similar roles (De Wert et al., 2003; Kelly et al., 2014; Mercieca & Kelly, 2018). The forms of social peer support gained through these networks match those of House (1981), with emotional, appraisive, informative and practical support all being evident (De Wert et al., 2003; Clarke et al., 2014). Such collegial support may be a factor in retention of early career teachers in the profession (Mercieca & Kelly, 2018) and may play an important role in teacher development and career progression (Kelly & Antonio, 2016). Intra-school private back channel groups show similar patterns of support (Cansoy, 2017), with the ability to chat informally being important to professional development (Macia & Garcia, 2016; Cansoy, 2017). There may be parallels with Garcia et al.'s (2015) findings that students on the periphery of back channel networks were more likely to drop out of their courses than students central to the networks (pp. 294–295).

Summary

Some key themes can be drawn from the literature. Work-based students could be seen as occupying a middle ground between 'traditional students', distance learners and early career professionals. Developing strong connections is important for their success, both academic and personal. Increased social capital and the forming of a profession-oriented self-identity, and supportive social networks are key to this. Shared situational experience engenders a sense of community and helps these networks to develop, but

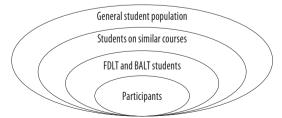
their success is dependent on strong interaction, with a combination of face-to-face and online interaction providing the strongest 'social glue'. Unofficial 'back channel' networks are an important conduit for sustaining group cohesion, adding social capital and supporting learning in a 'safe' and mutually supportive environment.

Research design

This case study used an ethnographic approach, as the researchers were interested in how the students theorized their own behaviour (Walliman, 2005, p. 122). To this extent this study can be positioned as a phenomenological study within a constructivist paradigm.

The sample of this study was taken from ninety-five students (eighty-four female, eleven male) on either Year 2 of a work-based Foundation Degree in Learning and Teaching (level 5 within the UK structure) or the following one-year course that enables students to top-up to a full BA (Honours) degree in Learning and Teaching (level 6 within the UK structure). These are non-traditional degree students who were all mature and employed in educational settings, supporting learning and teaching, and attending university one day a week throughout the extended academic year.

The participant sample for this study can be thought of as existing within increasingly broad population tiers or 'circles' (Fig. 1). The first, and closest, population tier is the course cohorts, who have a strong similarity in terms of academic and working experience. Findings from the study will likely be reflected closely in their experiences and perceptions about the use of social media to support study. The second level of population is students who are on similar courses, for example, other Foundation Degrees or vocational training degrees where a significant proportion of time is spent in a placement. The third level of population is students studying at the same University and those studying similar courses at other universities. The further away from the centre a student sits, the less applicable the findings are likely to be as experience and study mode diverge from that of the first population tier.



FDLT = Foundation Degree in Learning and Teachning; BALT = BA (top up) in Learning and Teachning

Figure 1. Population Circles

This is a non-probability sample; the sample is from a defined cohort, not a random selection (Walliman, 2018, p. 109). All the potential participants share two characteristics, being a student at the university and working in an education setting. Despite the self-selecting nature of the sample, the participants did end up being representative of the population, consisting of both male and female students and students from both courses (Owen, 2017, p. 132). The primary method of data collection was focus group. Ultimately, due to scheduling and availability issues, two focus group discussions and one group interview with two students were conducted. For this study it is difficult to claim transferability due to potential issues relating to the narrowness of the sampling frame as discussed elsewhere. Further, larger scale research, preferably across several settings, would need to be done in order to judge how transferable the findings are. A number of questions and themes were explored during the conversations with students. The schedule was so concise that it can be presented in full here:

Table 1. Key Themes and questions

Starter comment – One thing you all have in common is that you work in education settings; does that bring any advantages to you as a group?

Then:

- With this common ground, given the diverse backgrounds and experiences and that you are only in University one day a week, how do you feel you support one another?
 - Face to face
 - During the rest of the week
- What is the 'bridge' between the face to face and the rest of the week? (want to get at ways they communicate outside university social media, email, text, apps)
- How did that 'bridge' develop?
- How have your ways of communicating developed over the duration of the course?
- How has it (the communications) helped you? (might be 3 strands to follow here)
 - Pastoral/emotional support
 - Study/academic support
 - Work-based experiences
- What barriers have you experienced? How have they been overcome?
- What recommendations would you make to future groups of students?

An expected benefit of using focus groups to collect data was that they should provide rich discussion and opportunities to collect detailed opinions (O'Leary, 2017, p. 140), and this was the case with these groups. The focus groups were followed by a paired interview using the same themes as the focus groups. Therefore three sources of data (two focus groups and one paired interview) provided triangulation. The focus groups and the paired interview were recorded using a passcode protected digital recording device. Although it is possible that participants can feel uncomfortable being recorded (Mann, 2016, p. 67), this did not appear to be the case in this situation.

Ethics

The aim of the study was to discover how students use engagement with one another via social media to enrich their university and learning experiences. Engaging in reflection on this part of their student and professional experience could have informed their self-identities as early career practitioners, so it was important that there was no harm to their self-esteem or self-image from participating. Duty of care and the requirement to consider the potential effects of participating on the participants are key elements of the British Educational Research Association guidelines (BERA, 2018, p. 19). The language used throughout was carefully considered to ensure that it was gender and culturally neutral. This needed to be considered, as there was a mixture of female and male member in the sample and students from a variety of ethnic and cultural groups in both the sample and the immediate population. The terms 'participant' and 'contribute' were used throughout to signal that the research is being carried out in conjunction with the student, not that the research is something being done to them (Oliver, 2003 cited by Walliman, 2005, p. 343). Participants were given a letter outlining the scope and purpose of the research before the data collection and explicit permission was sought from them for their participation. This ensured that participants were gave their full informed consent.

Findings and discussion

The findings of the study were in line with the literature and suggest that shared experience is important in developing communities of study among work-based learners; that face-to-face and online relationships and environments may mirror each other in this, and that back channel online networks play a significant role in community support.

Shared experience and community development

Shared experience appears to be an important driver of community formation and development. Participants noted initial trepidation about beginning a degree course but felt that their confidence grew quickly in the opening weeks of the Foundation Degree programme as they were able to bond quickly with others through discussion of shared experiences. Some of these shared experiences, such as programme application and interview process, were generic, but the majority were focused on workbased practice. The participants identified that having an awareness of each other's situations and finding out about one another's experiences helped them relate to one another: "We're all in different sectors of the education: some are secondary, some are primary, some are early years so it gives you an insight into other people's [roles]."

As the communities developed, work-based learning remained an important vehicle for information sharing, particularly in classroom sessions. Participants felt that group discussion was an important part of their learning and that this was enriched by the differing perspectives brought about by their differing roles and contrasting environments and underpinned by related understanding which allowed them to talk with confidence and share knowledge: "We've all got that sort of understanding as well, like all got that common ground so there's always a talking point or something that we can sort of discuss as a group"

The relevance of work-based practice appears to increase students' self-efficacy: participants identified that their "real life" experience was related to what they learn at University and that this made them feel valued and more confident in their academic abilities. This suggests early signs of group formation based around common purpose (Wenger et al., 2009) and identification of self and others (Hoffman, 2006), based on connections through workplace role as well student experience (Wilcox et al., 2005; Hamilton, 2017). For emotional support, work-based situations were just one element in a wider picture of shared experience. The difficulties of completing a degree at the same time as being employed in an educational setting and, in many cases, managing domestic demands, were significant aspects of the support system: as one student put it: "It's important that you've got things, people who are like minded and who support in all aspects of your life and empathise with it all not just, you know, the uni side of things."

The importance of shared experience (Wilcox et al., 2005; Shackelford & Maxwell, 2012) is emphasised by the formation of smaller groups and pairings within the communities, as students bonded with people within the community who were most like them: their "study buddies". It is worth noting at this point that the retention and completion rates for these courses are high, above university and national averages, and participants identified the support received through these networks as a key aspect in motivating them to continuing with their studies during difficult times, academically and personally.

Functions of different communication channels

The study's participants identified social media groups as critical tools in the development of communities of study: "I think the creation of that Facebook group established the support as a group because it was [set up on] the first day."

The social media groups acted as a facilitator for discussion, guidance and support within the communities of study, both while on and away from campus, with social media sometimes being used to add to interactions during face to face contact. This is consistent with findings from literature that there is reciprocal reinforcement between face-to-face and online relationships (Munoz & Towner, 2011; Trust & Horrocks, 2017).

Both the physical environment and the virtual environment were important for community development. Initial face-to-face contact facilitated initial bonding through shared experience and informal online connections were quickly set up through social media.

As the course progressed, face-to-face contact remained important particularly for receiving and giving emotional support. Participants emphasised the importance of face-to-face contact and saw one function of social media networks as taking the place of face-to-face contact. This is similar to the findings of Haythornthwaite et al, (2009) Indeed, social media was seen as a replacement for the interaction experienced by residential students on campus: "...we all wouldn't see each other every day or, you know, get out of halls or get out of your student house and be like, 'do you want to hang out and do this', we can't do that. Even if we lived fairly close, you've still got work and family to kind of organize as well, so, yeah, WhatsApp... does replace that student on campus life."

Students also looked for ways to maximise face-to-face social contact: a group of Leicester students recounted how they would arrive early each week to, "go and get a coffee and then sit and have a chat about what we've done."

The online network provided a support mechanism in addition to official university channels. Comments from participants clearly indicated that, in line with findings from literature (Stone & Logan, 2018), these back channels are most effective when staff have no involvement or access although they might be set up in response to a staff suggestion. Identified advantages of back channel communication – immediacy of response, lack of tutor surveillance, and confidence to ask "ditzy" questions in a safe environment without fear of judgement – were consistent with findings from literature (Kearns & Frey, 2010; Egan, 2018; Stone & Logan, 2018). Participants identified that the social media network was particularly helpful for students who had joined the university for the BA (Honours) Learning and Teaching course having done a foundation degree elsewhere, and for those who were unable to attend regularly due to health issues as they were able to ask questions of their peers about session content and materials available on the university's intranet, before, or instead of, contacting the tutor.

I did [my foundation degree] at the university of Leicester, so, it's completely different here and so I've found everybody is really supportive, especially in our group and even in sessions when... you just go, 'I'm having a mare with thing'..., and they're like, 'Oh, well how about doing it like this?', you know, it's really – everybody has been so good. Really supportive.

By giving opportunities for the new students to integrate with established groups and for the irregular attenders to maintain their engagement, these aspects are relevant to the "social glue" aspect of community, and which, as suggested by literature (House,

1981; Wilcox et al., 2005; Shackelford & Maxwell, 2012; Garcia et al., 2015; Bilgin et al., 2017) may be relevant to retention and academic success.

Facebook and WhatsApp were identified as the main back channels of communication. Commonalities and differences can be identified in the way in which the different social media were used. Both were vehicles for study-based communication and support – questions about assignments, sharing of study-based information – but most communication related to the giving and seeking of emotional support, or celebrating success, came through WhatsApp. Multiple intra-cohort WhatsApp groups were set up; some of these were study-based e.g. one to share library resources, whilst others formed around friendship groups e.g. those seated at the same table. "I'm not on your table group but I'm in your library group..." Some of these groups were long-lasting, whilst others, were ephemeral: "...there's just different WhatsApp groups happening at different times."

A further finding of the focus groups suggests 'unwritten rules' to participating within the social media community of study groups. Unwritten rules of formality were evident in the use of different communication channels. The rules could be nuanced: email was rarely used, and was seen as being a more formal channel than social media groups. Disapproval was expressed at any students using recipients' personal email addresses rather than their university ones.

... when we did the debate for this module that really put my back up when some-body used my personal email to send, I'm like, I don't even know you please don't send me an email. I didn't like that.

Use of personal email contact was seen as appropriate only between those in close friendship groups. The social media groups appeared to be used for different levels of communication: Facebook was regarded as being a channel for "less personal" contact, whilst WhatsApp groups appeared to be used for deeper discussions with the small, friendship-based WhatsApp groups seen as places where students could be most open with each other:

There's things you'd say like in our small WhatsApp group that I wouldn't post on to the big Facebook just because I'm closer to the people in the WhatsApp group than I am the whole group on Facebook. Might be more specific, something that we'd be asking. You don't want to ask everyone there, everyone knows you've just asked this question, but you think it's ok to ask so and so because they know me, they know I'm not being ditzy.

Conversations of a more personal nature on Facebook or larger WhatsApp groups were only acceptable to an extent, as an individual's over-sharing about personal life or academic success was not seen as relevant or productive to the community of study. The

tolerance of a certain amount of non-academic interaction may indicate the strength of the 'social glue' of the community and emphasis on the importance of mutual social support (House, 1981; Wilcox, 2005; Shackelford & Maxwell, 2012).

Physical environments and community formation

There were significant differences between the two venues in the study with one, in Northampton, on a university campus and the other, in Leicester, in a hired room. There were also variations in the group sizes at each venue. Despite this, most findings from the cohorts were similar and in line with the literature. However, there were some differences in the ways in which social media were used by cohorts and this may be related both to the number of students and to the physical environments in which face-to-face sessions took place. Smaller cohorts at Leicester, who were in an approximately square room with tables arranged in a "U" shape, engaged readily with the whole of the cohort regularly both in face-to-face sessions and in the social media groups, whereas larger cohorts at Northampton who were in a longer, thinner room with blocks of tables, engaged with smaller numbers of people regularly in face-to-face sessions and correspondingly with fewer people in social media groups. This can be related to findings from literature regarding the reinvention of offline community relationships online Haythornthwaite et al., (2000) and reciprocity between offline and online relationships Trust and Horrocks (2017).

Conclusion

The key findings of the study relate to the value that students found in their informal back channel communications. These clearly supported the students' sense of identity as higher education students and served to provide support, both academically and affectively, boosting their confidence and enriching their learning. As it is likely that higher education in the United Kingdom will move increasingly towards a work-based model with the growth of the Degree Apprenticeships, programme leaders and tutors should consider how students whose access to face-to-face sessions is limited can develop communitas and build professional working models that can extend into their employment and career development. However, it is important to recognise from these findings that the networks that were effective were those built, developed and maintained by the students themselves, whether these were short lived with a particular focus, or long-term communities of study, and where there was no staff involvement at all.

When considering the use of social media platforms and the andragogy of teaching work-based higher education students there is much surrounding literature, but

very little research aimed specifically at the intersection of these areas of student use of social media platforms to support their academic development and learning. As the nature of higher education courses changes, along with the characteristics of people undertaking work-based degree level courses, further investigation of the development of communities of study can help course design and provision meet the changing needs and learning patterns of students and make the most of available technologies. A longer-term study, following the experiences of students through an entire three-year work-based degree course and beyond, as well as the experiences of more students taught more traditionally, potentially in other subject areas, would give opportunity to explore this intersection and its potential to support students more fully.

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