

Promoting a Community of Practice Online: How Important is Social Presence?

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Abstract

Encouraging interpersonal exchanges to support collaborative learning which require an element of self-disclosure can be problematic particularly in online environment. It can take time for a diverse group of distance learners to bond with each other sufficiently to ensure meaningful relationships are formed which promote trust and give the students confidence to share their experiences. Often this time is not available.

Using an innovative approach to support students, which has been used successfully face-to-face but never before online, we explore how students undertaking an online asynchronous leadership course as part of their MSc or as a stand-alone CPD module, felt supported by a 'tool' more commonly used as an icebreaker, and often referred to as the 'Jelly Baby Tree' (JBT). We have adapted this tool so that it can be used online to foster a sense of community.

This paper attempts to answer a number of questions, including: How do students develop social presence and connect with each other on an asynchronous distance learning course? What contributes to the formation of positive relationships that promote successful interactions and encourages them to work collaboratively to enhance their learning in an online environment?

Preliminary analysis suggests the students have found the JBT to be a much valued aspect of the course. They report that "the Jelly Baby Tree is the best bit of this course" giving it "the 'human touch'", that "best of all is the Jelly Baby Tree – my stress relief and where I found so much support" while others "come away inspired every time I read someone else's jelly baby posting".

Arguably, the JBT has allowed and encouraged students to be reflective and to feel able to disclose personal information about themselves and their leadership style in a safe and supportive environment. Significantly, in a diverse cultural group the JBT appears to have been perceived as a neutral, safe and non-threatening means through which students could connect with each other without misunderstanding. There has been a clear correlation between the students' interactions with the JBT, the degree of social presence and their active participation throughout the course.

Keywords

Social presence, community of practice, online environment, asynchronous e-learning, student engagement, Jelly Baby Tree.

1 Introduction

Social presence has been defined as “the ability of participants in a community of enquiry to project themselves socially and emotionally as ‘real’ people through the medium of communication being used” (Garrison et al, 2000, p94). It is recognised as an important factor affecting the development of a sense of community among learners (Rourke et al, 1999; Aragon, 2003). Positive social presence correlates with students’ positive perceptions of their learning (Picciano, 2002) and is a significant predictor of a student’s overall satisfaction (Tu, 2002). This is important for many reasons including attracting and retaining students (Rovai, 2002).

This paper will explore the use of an ice-breaker tool, which I have always called the “Jelly Baby Tree” (JBT) but which was inspired by Pip Wilson’s Blob Tree or Emotions Tree (Wilson, 2005) which he had first used with children in the 1980’s (although when I first started using the image I did not know this was the source and had wrongly attributed it to Leeds University (UK Grad, 2003)). This image was adapted by us for use within an asynchronous online course. This paper will demonstrate the positive effect its use has had on community building, course engagement and social presence. Moreover, the evaluation of the JBT over several iterations of the leadership course within Nursing Studies (NS) demonstrates that this tool can be used successfully in both face to face (f2f) and online environments.

1.1 The need for change

Exploring the significance of the JBT and its usage in an online course provides a greater awareness of how Web 2.0 technology can be used within twenty first century Higher Education. This is significant as the University of Edinburgh (UoE), in line with other Higher Education Institutes, is expanding its online provision of taught postgraduate programmes. Moreover, the University’s Strategic Plan for 2012-2016 highlights the need to support Postgraduate Taught Students (PGT) and sets out three strategic goals for excellence in education, research, and innovation. It also sets out a number of objectives, one of which is to combine “recognised teaching excellence with an outstanding student experience both on-campus and online” (p.25). Therefore, the use of innovative approaches to teaching and learning is at the forefront of our online programme delivery.

NS wanted to recruit more postgraduate students by expanding the number of programmes offered and by making existing programmes more attractive. The first step in this objective was market research. The results indicated that prospective students were looking for flexibility, whilst balancing various commitments, offered by online courses. This is further supported by studies focusing on nursing students who participated in online learning (Ali et al., 2004; Sit et al., 2005). As a result, the course leader was asked to redesign the on campus f2f leadership course so it could be delivered online.

1.2 What do nursing students want from online learning?

Consideration was given to Sit et al’s (2005) study of an online learning initiative within a post registration nursing degree that looked at the student experience of online learning, in order to apply their knowledge to the development of the online leadership course. While 56.7% of respondents to their questionnaire were satisfied or very satisfied with the online learning experience, 63.3% listed the biggest hindrance to their learning as inadequate opportunities to establish peer support. Similar findings were obtained from the open-ended questions in their study where the most frequently identified hindrance to their learning online (36%) was given as the inadequate opportunity for human contact and interaction. This can be captured by a quote from one of the respondents: “Sometimes it is boring to study on my own. It seems that I am talking to the computer...I felt lonely and not sure if I was on the right track.” (Sit et al 2005, p146). Suggestions for future improvements included building an infrastructure into the online design that would facilitate peer support. Based on their findings, Sit et al (2005, p146) suggested that “innovation and creativity are needed in enhancing human-machine interface communication to facilitate peer interaction, support and socialisation in the online learning process (Bentley et al, 2003; Espeland and Inrehus, 2003; Kozlowski, 2002)”.

In another study of graduate nursing students’ experiences of online learning, social isolation was found to be a significant problem. One student reported “You felt like you were just all alone. I just thought I was typing into space or something” (Ali et al 2004, p112).

2 Contextual Framework: The “Jelly Baby Tree”

2.1 Use of the Jelly Baby Tree in a face to face context

The JBT has been used in many contexts as an icebreaker by the course leader. It was first used by them when they were delivering leadership programmes to the NHS. Within the University, it has been used successfully in NS. During each iteration of the f2f MSc leadership course (2008/9-2010/11) the JBT (Figure 1) was introduced to the students and used by the instructor as a tool to help and encourage the students to state where they saw themselves in terms of their current leadership position and to establish where they were on their leadership ‘journey’.

The JBT was then used each week to gauge how the students were feeling in terms of their involvement with the course, how well they felt they were being supported and how they perceived themselves in terms of how well they were balancing their various academic, professional and personal commitments. At the start of the class each student was asked to identify with a particular Jelly Baby and use this to articulate and share their feelings with the rest of the group. This meant that every student had spoken aloud and shared a personal reflection within the first few minutes of the class.

In this way, the JBT was being used as a conventional ice-breaker. Significantly, it was found that, having done this, the students were more inclined to contribute to discussions and ask questions during the remainder of the class. A sense of community was created and the students were able to offer and receive support from both their peers and the instructor. Every year, student course evaluations have consistently identified the JBT as one of the best features of the course and comments such as “The Jelly Baby Tree made you feel cared for within the group” (2008/9), “I liked the jelly baby men” (2009/10) and “The Jelly Baby Tree was very, very helpful” (2010/11) appeared frequently on these evaluation forms.

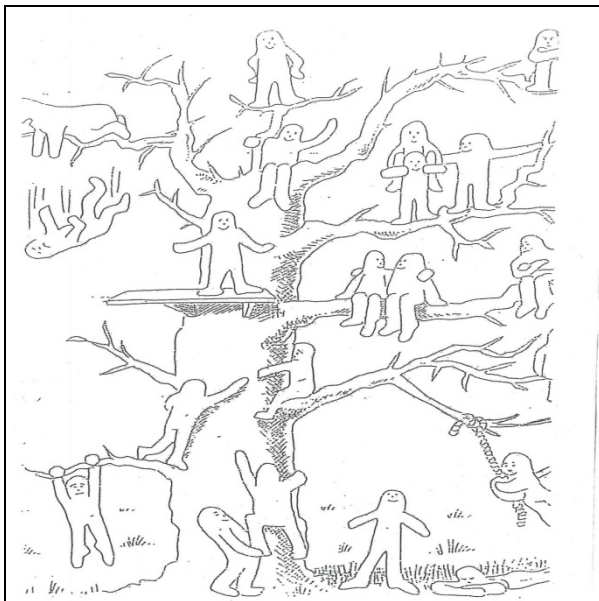


Figure 1: The original Blob Tree (Wilson, 2005) but referred to as the JBT by me because I didn't know where it had come from

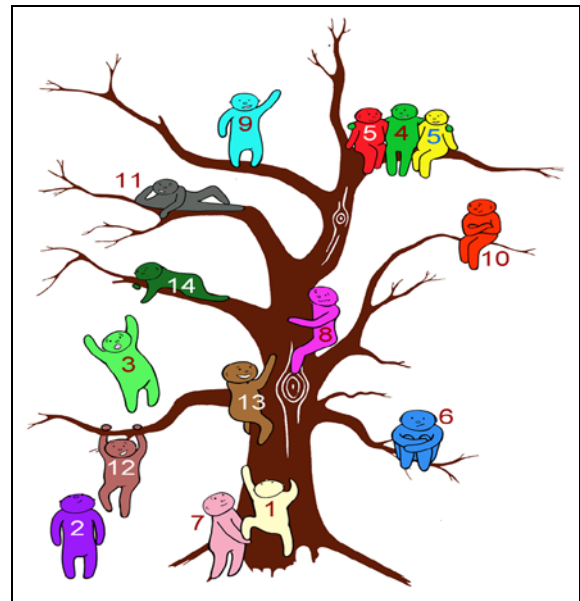


Figure 2: The online version of the JBT (inspired by The Blob Tree)

2.2 Use of the Jelly Baby Tree in an online context

Before undertaking the design of any online course it is important to have some understanding of the needs of online learners and also if possible to be aware of any specific needs of the student cohort being taught. Consequently it was important not only to review what was personally known and understood about online learning (Carson, 2012) but to also review specific literature on online learning in postgraduate nurse education. It was also important to think very carefully about whether what was effective f2f would work online (Carson, 2012). Evidence from Car-Chellman and Duschastel (2001) indicates that simply transposing a traditional course to an online medium runs the risk of diluting the content and leads to an unsuccessful learning experience. White (2003), states that an effective online course is designed differently from a face-to-face course while the UoE's Manifesto for Teaching Online (2011) states that "The possibility of the 'online version' is overstated. The best online courses are born digital". The intention was therefore to retain what had worked well f2f but to avoid falling into this trap. The question which arose in relation to the JBT was therefore 'Can teaching strategies that have worked well in a classroom setting be successfully transposed to an online environment?' i.e. 'Would the JBT work online?'

As has been demonstrated, while the JBT had successfully been used in the f2f leadership courses it had never before been implemented in an online course. Its selection was seen as an innovative approach to encourage social presence within an online context and it was hoped that its use would help to support and develop the PGT students taking this course.

One of the first things was to adapt the 'original' JBT (Figure 2). This was done by removing of some of the Jelly Babies, rearranging the groupings of others, numbering them all and adding colour to make it more visually appealing. The visual element online is important as only two of the five senses are present here and so the visual dimension can become the prominent sense in which to engage with others. Visual content can be used as indicators for emotion, for example the use of emoticons in discussion boards. In addition visual cues, such as symbols or images can be used as a signposting mechanism within the virtual learning environment. There may also be activities, such as the JBT which use visuals to engage with the students. Therefore, the visual element within online distance learning can provide a means in which to develop social presence and community building (Garrison et al, 2000). Importantly, the visual content in online courses contributes towards a better student experience. Providing a means by which to build an emotional and behavioural aspect into the online experience further highlights the important place that the element of trust has in activities where disclosure of feelings (and emotions) directly relates to the building of community, (Ravenscroft, 2005, p.137), as is found in the JBT forum.

The setting up of the JB forum included a separate weekly discussion board with a single thread which was called 'The Jelly Baby Tree' (see Figure 5 for a breakdown of the number of posts each week). The idea was that students would be introduced to the JBT during the induction to the course and thereafter, as before, would be asked each week to use the JBT to reflect on where they were and how they were feeling (see Box 1). It can be seen from this that the Jelly Baby forum was conceptualised differently from the main discussion board as it was seen as a place for developing community through social interaction. The instructor(s) would do the same in order to 'model the way' and connect with the students thereby fostering a sense of social presence for themselves as well.

Box 1: Guidance on how to use the Jelly Baby Tree.

Please have a look at the [“Jelly Baby Tree”](#). You will see it consists of a series of numbered 'Jelly Babies' in, on and around a tree. Some appear confident, happy and relaxed while others appear to be less content. Some are giving and some are offering support. Some are alone while others appear in pairs or in a group. Some appear to be solitary and/or isolated while others appear to be part of a crowd. Each week we will be asking you to have a think and reflect on where you are currently on your own personal leadership journey in terms of:

- how you are feeling about being/becoming a leader
- how well supported you are feeling on this course by both your fellow students and the course leaders
- what effect any external factors (work, home, relationships etc) have had on your week and how this might be impacting on how you are feeling today

We will ask you to do this by selecting the coloured 'Jelly Baby' that best corresponds to how you are feeling and asking you to provide a short summary on this week's discussion board once you have considered the above.

The course content was divided into weekly topics and each week had its own discussion thread(s). Excluding the Jelly Baby posts, which were not assessed, all other discussion board posts, which were structured and focused on the completion of set activities as part of the course contents, were marked each week using a rubric and the marks from these posts contributed to 40% of the students' overall course marks. At the end of Week 5 these marks were shared with the students in the form of formative feedback. The number of posts each week is shown in Figure 6.

3 Method and data collection

The analysis for this paper draws from existing findings (Garrison et al., 2000; Carson 2012), as well as qualitative and quantitative data from a number of iterations of leadership courses delivered within Nursing Studies (NS) at the UoE between 2008-13.

In the academic year 2012-13, fourteen students enrolled on the online MSc leadership course and the demographics of this cohort are shown below. Figure 3 illustrates the gender split and Figure 4 shows the percentage of home versus international students. Of the home students four (28%) were qualified nurses who were undertaking the course as part of their continuing professional development (CPD). Of the other home students one (7%) was full time and the other three (21%) were part time. The international students were all full time. The international students were younger (26-29 years; mean age = 27) than the home students (30-47 years; mean age = 36) and the CPD students (28-50 years; mean age = 42).

Over the duration of the course records were kept of the number of the Jelly Baby each student identified with on a weekly basis and any specific comments that referred to the Jelly Babies were noted. On completion of the course and after their graduation, the students were contacted by email and asked to complete a short questionnaire using the Bristol Online Survey tool. This has enabled us to collect quantitative and qualitative data on key themes such as community, social presence and online identity. When analysed, this data will enable us to gain a greater understanding and insight into the benefits of using an online icebreaker tool such as the JBT to increase social presence and as a consequence increase social interactions in an online environment.

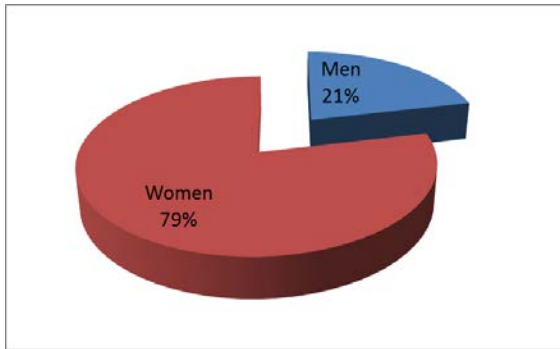


Figure 1: Gender split
(2012-13 online leadership course)

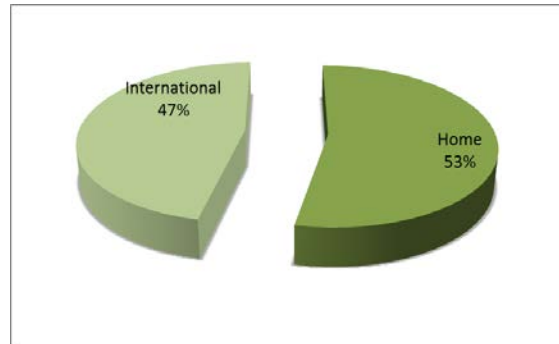


Figure 2: Home & International students
(2012-13 online leadership course)

4 Findings and discussion

The following discussion focuses on three areas in relation to the JBT, namely the importance of online community and engagement; the discussion boards; and social presence in relation to learning. The implementation of this ice-breaker tool enabled a sense of social presence to develop and as a result improved the student experience and engagement on the online leadership course.

4.1 Importance of Online Community & Engagement

One of the challenges of online courses is the sense of isolation which can contribute to attrition rates. This problem has been addressed by many, such as Patterson and McFaddon (2009), who state that attrition rates are higher in online courses. Therefore, developing a course which fosters a sense of community can help to reduce feelings of isolation (Gerlock and McBride, 2013). Moreover, there is evidence to suggest that both retention and satisfaction rates improve if online learners experience a sense of community (Ali and Leeds, 2009; Lee et al, 2011; Tirrell and Quick, 2012).

These factors were considered when developing the online leadership course. The course delivery tried to avoid the notion that web-based learning can leave students feeling that they have been communicating with machines and not human beings. The aim of using the JBT was to build a sense of community and thus increase engagement by providing a forum through which to foster the development of an online community. If this is looked at more closely, a sense of community develops when a common interest or environment is shared (Dawson, 2006). Baran et al (2012, p436) state that “Online teachers should be encouraged to promote community building around online teaching.”

Rovai (2002, p4) defines classroom community in terms of spirit, trust, interaction and commonality of expectations and goals. The element of trust should not be underestimated in an online course, as it is significant for building and maintaining communities. The JBT exercise further reinforces the importance of trust as it exposes the students to a reflective and ongoing shared group activity. This is articulated by the following student comments from 2011-12 (sic):

“I share your feelings too. I quite appreciate the level of bonding despite the differences in space and time and the vulnerability based trust which makes communication easier. I took on this course as a challenge because I dislike social science courses which are usually abstract and non specific. But I must say that nine weeks down the line, I am glad I did. The support from my course mates and facilitators has been excellent”.

“It is really nice knowing that others are working hard too. It is so overwhelming at times and then I read your posts and realize that there is so much dedication and everyone cares for each other even though we don't see each other eye to eye. That encourages me every day. Come to think of it, I feel someone pushes me up the tree when life gets hard.”

Preliminary analysis suggests that students have found the JBT to be a much valued aspect of the course. Direct feedback from students on the online course (2011-12) confirms this:

“I think the Jelly Baby Tree is the best bit of this course. It gives the course the ‘human touch’.”

“I have enjoyed the Jelly Baby forum, sharing our thoughts together, I did not feel alone”

“Best of all is the "Jelly Baby Tree" -my stress relief and where I found so much support!”

“I’ve done at least 3-4 courses on leadership etc so to be honest I’ve got quite bored with them. Thus my expectations were low – but I’m pleased to say they were easily exceeded – mainly because I think everyone offered something of themselves (rather than sterile theory) in the Jelly Baby Tree. Life is so much more fulfilling when everyone is real (even in a virtual environment!).”

The comments, above, highlight the significant contribution the JBT is making in relation to the sense of connection felt by the students and the formation of an online community. Self reflection is encouraged as is community building (Brown, 2001). Consequently, the sense of an online/offline paradigm is lessened and students here, unlike those in Sit et al.’s (2005) and Ali et al.’s (2004) studies, have achieved a sense of community. As the Connected Learning Manifesto (2012) states: “Connected learners are never lonely” and this is supported by the UoE Manifesto for Teaching Online (2011) which says “Community and contact drive good online learning”.

4.2 Discussion Boards

The JBT was used in conjunction with the discussion board within the Virtual Learning Environment (Blackboard Learn). The discussion board enables participants to post messages and respond to others asynchronously. Understanding how discussion boards can be implemented to develop social presence and community is fundamental within this type of group activity. There are a number of benefits to using discussion boards for this type of activity, including the flexibility in which students can post comments at a time which suits them; enables students to critically evaluate their response before posting; and provides a forum in which to build a community online.

During the ten week leadership course there were a total of 274 posts to the Jelly Baby thread. Figure 5 highlights the weekly breakdown of these posts. All fourteen students not only commented regularly themselves (which is requested) but many also responded to each others’ posts. It could be argued that the success of the JBT can be illustrated here by the volume of posts alone.

Figure 6 shows the activity each week on the discussion boards. As shown, this activity was maintained throughout the entire course with the majority of students (71%) posting multiple comments each week. Four of the fourteen students on nine occasions between them did not post (0.06%), which equates to 9/140 weeks where they did not post. The circumstances for this varied but included special circumstances, being on annual leave or on night shift. Furthermore, as was mentioned earlier, the JBT activity on the discussion boards was not assessed and so it is worth noting that the motivational drivers for students to post to the discussion board were likely to be intrinsic rather than extrinsic, which is often not the case (Ravenscroft, 2005, p.137). This further highlights the significance that this activity had for the cohort and the importance that they placed on it.

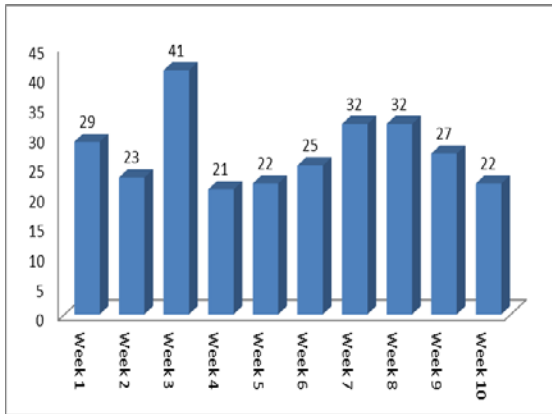


Figure 5: Number of posts per week to the JBT (2012-13 online leadership course)

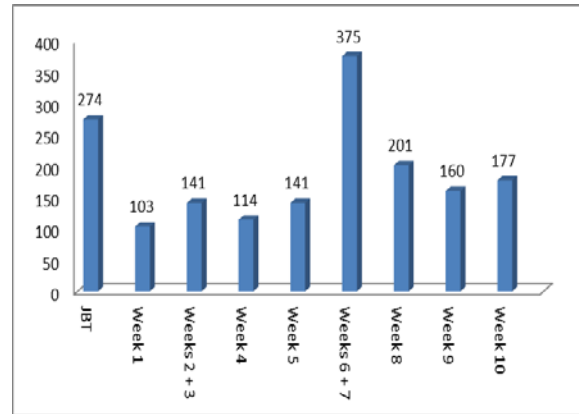


Figure 6: Number of posts per week (2012-13 online leadership course)

4.3 Social Presence and Learning

Positive social presence correlates with students' positive perceptions of their learning (Picciano, 2002) and is a significant predictor of a student's overall satisfaction (Tu, 2002). Fabro and Garrison (1998) found social presence to be crucial in establishing a critical community of learners. This is important in terms of attracting and retaining learners to online courses (Rovai, 2002). In 2012-13 the online leadership course was completed by all fourteen students. During this time they remained engaged with the JBT and contributed to the weekly discussion boards. Garrison et al (2000, p95) argue that cognitive presence is more easily sustained when a significant degree of social presence has been established (Garrison, 1997; Gunawardena, 1995). That is, socio-emotional interaction and support are important and sometimes essential in realizing meaningful and worthwhile educational outcomes.

The learning obtained from the reflective practice and participation with other students contributes to the student transferring skills from an online context to the offline context. As a result of this they implement leadership skills into other environments and take responsibility for their own learning. The correlation between reflective practice and building a community through social presence marks a qualitative difference between a collaborative community of inquiry and a simple process of downloading information (Garrison et al., 2000, p96).

5 Conclusion

This paper has focused on the importance of social presence in an online course and how the innovative use of an ice-breaker tool, known as the JBT has made what we see as a significant contribution to the formation and maintenance of an online community within an MSc course on leadership within NS. By carefully setting the scene and encouraging the students to actively participate in the weekly JBT discussion thread by modelling this behaviour ourselves, we provided an environment which enabled them to build a real sense of connection to and with each other in an asynchronous online course.

Our findings indicate that the JBT has directly contributed to student satisfaction and improved their engagement with the course. Through the formation of positive relationships with their peers, despite never meeting them in person, successful interactions took place and the students were able to work collaboratively to enhance their learning in an environment that was unfamiliar to all but one of them. This greatly enhanced the student experience for all. The volume of posts and actual comments from the students corroborate this conclusion. Student comments highlight that the JBT provides a means through which they feel present and connected with both their fellow students and instructors:

“When I started this course I was not quite clear whether I would manage the online environment considering that I would never see my classmates or tutors hence and yet I wanted a personal touch. Honestly, I did not understand the concept of the Jelly Baby Tree and I did not see where the tutors were heading with this. Looking back, I must say I am so overwhelmed with the encouraging words from my classmates whom I have never met. No words can ever state how grateful I am for the jelly baby forum.”

“This course has been a rewarding and enjoyable one. There is so much to be learned. When I started the course, I thought oh leadership - I have done so many of those, it’s going to be boring but it truly was not. The Jelly Baby Tree was really inspiring. The support from fellow students and teachers were remarkable.”

It could be suggested that the JBT has allowed and encouraged students to be reflective and to feel able to disclose personal information about themselves and their leadership style in a safe and supportive environment. Significantly, in a diverse cultural group the JBT appears to have been perceived as a neutral, safe and non-threatening means through which students could connect with each other without misunderstandings and we believe it has helped to foster a sense of social presence thereby promoting a community of learning in an asynchronous online course.

It is hoped that by disseminating the findings from this study that there will be further insight gleaned into the development of online courses and the importance that social presence has in relation to promoting and sustaining communities of practice. Given that the JBT is a generic tool which is not discipline specific it, or other ice breaker tools, could be applied to other online environments to promote an online community. Further research into online presence and the use of this and other icebreaker tools within other disciplines would provide a greater understanding of how students can be supported in online environments and the impact this may have on their engagement with their studies and their peers.

6 References

- Ali N S, Hodson-Carlton K and Ryan M (2004) Students’ Perceptions of Online Learning Nurse Educator 29(3) 111-115
- Ali R. and Leeds E M (2009) The impact of face-to-face orientation on online retention: A pilot study. Online Journal of Distance Learning Administration 12 (4)
<http://www.westga.edu/~distance/ojdla/winter124/ali124.html> accessed on 29 January 2014
- Aragon S R (2003) Creating social presence in online environments. New Directions for Adult and Continuing Education 100 57-68
- Baran E, Correia A-P and Thompson A (2011) Transforming online teaching practice: critical analysis of the literature on the roles and competencies of online teachers. Distance Education 32(3) 421-439
- Bentley G W, Cook P P, Davis K, Murphy M J and Berding CB (2003) RN to BSN program: transition from traditional to online delivery. Nurse Educator 28(3) 121-126
- Brown R E (2001) The Process of Community Building in Distance Learning Classes. Journal of Asynchronous Learning Networks 5(2) 18-34
- Car-Chellman A and Duschastel P (2001) The ideal online course. Library Trends 50(1) 145-158
- Carson M N (2012) “Lost in Translation: Can a face-to-face taught Masters course be equally successful online?” Health and Social Care Education Issue 1 (Winter 2012) 17-18
- Connected Learning Manifesto (2012)
<http://plpnetwork.com/2012/07/23/connected-learning-manifesto/> accessed on 29 January 2014
- Dawson S (2006) A study of the relationship between student communication interaction and sense of community. The Internet and Higher Education 9(3) 153-162
- Espeland Vand Inrehus O (2003) Evaluation of students’ satisfaction with nursing education in Norway. Journal of Advanced Nursing 42(3) 226-236
- Fabro, K. R., & Garrison, D. R. (1998). Computer conferencing and higher-order learning. Indian Journal of Open Learning, 7(1), 41- 54.
- Garrison, D. R. (1997). Computer conferencing: The post-industrial age of distance education. Open Learning, 12(2), 3 - 11.
- Garrison D R, Anderson T and Archer W (2000) Critical enquiry in a text-based environment: Computer conferencing in higher education. The Internet and Higher Education 2 (2-3) 87-105

- Gerlock J A and McBride D L (2013) Managing Online Discussion Forums: Building Community by Avoiding the Drama Triangle. *College Teaching* 61(1) 23-29
- Kozlowski D (2002) Using online learning in a traditional face-to-face environment. *Computer in Nursing* 20(1) 23-30
- Lee S J S, Srinivasa T T, Lewis D and Lopez S (2011) Examining the relationship among student perception of support, course satisfaction and learning outcomes in online learning. *Internet and Higher Education* 14(3) 158-163
- Leong P (2011) Role of social presence and cognitive absorption in online learning environments. *Distance Education* 32(1) 5-28
- Manifesto for teaching online (2011)
<http://www.swop.education.ed.ac.uk/manifesto.html> accessed on 29 January 2014
- Patterson B and McFadden C (2009) Attrition in Online and Campus Degree Programmes. *Online Journal of Distance Learning Administration* 7(2)
<http://www.westga.edu/~distance/ojdla/summer122/patterson112.html> accessed on 29 January 2014
- Picciano A (2002) Beyond student perceptions: Issues of interaction, presence and performance in an online course. *Journal of Asynchronous Learning Networks* 6(1) 21-40
- Ravenscroft, A. (2005) E-learning Communities in R. Land and S. Bayne (eds.), *Education in Cyberspace*. Routledge, Falmer: London, New York.
- Rourke L, Anderson T, Garrison D R and Archer W (1999) Assessing social presence in asynchronous text-based computer conferencing. *Journal of Distance Education* 14(2) 51-70
- Rovai A P (2001) Building classroom community at a distance: A case study. *Educational Technology, Research and Development Journal* 49(4) 35-50
- Rovai A P (2002) Development of an instrument to measure classroom activity. *Internet and Higher Education* 5(2) 197-211
- Sit J W H, Chung J W Y, Chow M C M and Wong T K S (2005) Experiences of online learning: students' perspectives. *Nurse Education Today* 25(2) 140-147
- Tirrell T and Quick D (2012) Chickering's Seven Principles of Good Practice: Student attrition in Community College online courses. *Community College Journal of Research and Practice* 36(8) 580-590
- Tu C-H (2002) The measurement of social presence in an online learning environment. *International Journal on E-learning* 1(2) 34-45
- UK Grad (2003) http://skills.library.leeds.ac.uk/lecturer/exams/handouts/jelly_bean_tree.pdf accessed on 29 January 2014
- University of Edinburgh Strategic Plan 2012-2016
<http://www.docs.sasg.ed.ac.uk/gasp/strategicplanning/201216/StrategicPlan201216.pdf> accessed on 29 January 2014
- Wade C E, Cameron B, Morgan K and Williams K C (2011) Are interpersonal relationships necessary for developing trust in online group projects? *Distance Education* 32(3) 383-396
- White A Roberts V and Brannan J (2003) Returning nurses to the workforce: Developing an online refresher course. *The Journal of Continuing Education in Nursing* 34(2) 59-64
- Wilson P (2005) <http://www.pipwilson.com/2004/11/blob-tree> accessed on 29 January 2014