Factors affecting student attendance at online tutorials in TU100 my Digital Life

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Abstract: The information Superhighway has opened up opportunities for people to learn at an advanced level without having to attend a higher education institution. There are a number of tools such as Blackboard which are used to provide online content and to allow students to collaborate both asynchronously and synchronously with their peers and with their Tutor. The Open University (OU) in the United Kingdom (UK) has a track record of utilising technology to allow students to participate in learning without formally attending classes in the traditional way. It has been possible for a number of years to utilise products such as Blackboard Collaborate to provide an online alternative to a traditional tutorial or seminar. The authors experience has shown that students are reluctant to utilise technology to collaborate in online activities as alternatives to the traditional tutorial or seminar. The motivational factor of using technology as part of the E-Learning experience does not appear to be working with low participation rates at on line tutorials from those who attend. This paper seeks to explore student attitudes to participating in online Tutorials on the Open University Course TU100 My Digital life through the use of a questionnaire based survey undertaken with the 2016-2017 module cohort. The paper attempts to interpret the empirical research in order to identify factors which are either encouraging or discouraging students from participating in online Tutorials on the TU100 course my Digital Life.

1. Introduction

Online synchronous Tutorials are now an established form of supporting students studying on distance learning courses and in some institutions are seen as a replacement for Face to Face sessions. A number of products such as Lyceum, Blackboard Collaborate, Blackboard Collaborate Ultra and Adobe Connect to mention just a few products exist to support this activity. Chetwynd et al (2009) identified a number of drawbacks to using online tutorials with OU Technology Students, including less flexibility and difficulty in attracting attendees to online session. Chetwynd et al (2009) does acknowledge that some students who attended online tutorials found the sessions useful. The positive findings are in line with aspects of Goodfellow (2014) who identifies that students who attend both face to face (F2F) and online Tutorials find the process worthwhile.

From a Tutors perspective, as identified by Lambie and Law (2015), online Tutorials are non-trivial activities and require a significant amount of preparation time to ensure a good delivery and learning experience for the Student and Tutor. Online Tutorial Support tools generally provide some form of Whiteboard to provide the direction for the session.

Lowe et al. (2016) makes some recommendations regarding using online Tutorials on OU mathematics courses. These include:

1. Online sessions should supplement Face to Face Tutorials and not replace them directly
2. Online sessions should be recorded subject to participants permission
3. Tutors leading online sessions should share best practices

In the Authors experience attendance at Face to Face and online Tutorials is low. Typically, an OU Tutor will only ever meet around 25% of the students in an allocated Tutor Group. The move to a Group Tuition Policy (GTP) in the OU, which allows students to sign up for a Tutorial session within a geographical cluster that is convenient may also be affecting attendance. Giesbers et al. (2014) identified that offering online sessions restricts the learner's flexibility because it ties them to a specific date and time.

With the increasing popularity of online Tutorial sessions this paper seeks to investigate the attitude of students on the Open University (OU) Course TU100 My Digital Life. The aim is to investigate what factors influence Student attendance and contribution to online Tutorials. The aim is to identify if there are specific actions that can be taken by individual Tutors and by the institution to encourage a greater level of attendance and contribution at online Tutorials to help support students in a community of practice.

2. Literature review

Transactional Distance is a pedagogical concept with its roots in the 1970's which attempts to define and propose a theory for distance learning (Moore, 1993). Moore (1993) suggests that the degree of transactional distance in any educational programme can be determined by the interaction of three collections of variables: dialogue, structure and learner autonomy. In relation to the term "dialogue", Moore, suggests that dialogue should have an intention, be positive and be of benefit to each contributor. Moore, further defines the process of dialogue, as undertaken by each participant, as exhibiting respectfulness, each participant should be an "active listener", and should build on previous contributions. Educational "dialogue" should attempt to advance the student's comprehension (Moore 1993).

Dialogue, as outlined above, plays a major part in the success of an online tutorial. Moore suggest a number of factors that can shape dialogue between participants but singles out as an important environmental factor the "medium of communication." The use made of the communication medium has the ability to heighten dialogue between participants, hence, decreasing transactional distance (Moore 1993).

Interestingly, Moore identifies the forerunner to OULive, teleconferencing via Computer, as having the ability to "permit a more intensive, more personal, more individual, more dynamic dialogue ..." (Moore 1993). McBrien et al. (2009) view synchronous communication tools as having the "potential" to offer "meaningful real-time" discourse and the ability to connect geographically disparate students. McBrien et al. (2009) also suggest that synchronous tools enhance the ability for "dialogue". From their survey they suggest that synchronous communications offer a vehicle to "empower students in conversation and expression." (McBrien et al. 2009) In their paper McAlister et al. (2004) examine the cooperative exercise of "educational dialogue between peers online" attempting to discern a better understanding of the process and how best to encourage "effective educational interaction."

Moore (1989) proposed three types of interaction between student and lecturer within a distance learning environment: learner-content interaction, learner-instructor interaction, and learner-learner interaction.

All of these forms of interaction are important considerations when undertaking an online tutorial using a synchronous communication tool as successfully addressing these interactions should, in theory, contribute to a successful online tutorial. Giesbers et al. (2014) note that synchronous communication tools enable students and lecturers to engage in "direct social interactions" while also precipitating feedback. They also suggest that such tools allow for resolution of any misconceptions regarding the topic material and have the potential to enhance the students level of engagement.

Ng (2007) suggest that synchronous communication can replicate a real classroom environment providing "immediate interactive clarification of meaning". Synchronous communications tools such as OULive allow the lecturer to respond to the student's needs as they arise during the online session (McBrien et al. 2009). The inclusion of a synchronous tool such as OULive within a module or programme of study offers students an additional avenue to explore with regard to their own learning behaviour (Giesbers et al. 2014). Instantaneous feedback is an inherent advantage of using a synchronous tool for online tutorials (McAlister et al. 2004).

Interestingly, McAlister et al. (2004) note that aiding and evolving "effective educational interaction" with students undertaking open/distance learning courses can suffer from two problems: firstly, they can be new to academia and secondly, they may not have the opportunity for discourse thus not developing this skill. An interesting observation is the idea that offering online meetings/tutorials actually constrains the student as it restricts them to a set time and place with access to a computer and the internet required (Giesbers et al. 2014). Other environmental factors cited by Moore include the quantity of students, regularity of

communication, interactivity of the medium and willingness of students to initiate and participate in dialogue with the lecturer (Moore 1993).

TU100 is part of a distance learning programme and is aimed at students wishing to study technology; this places it in the juxtaposition of providing a solution to real-time synchronous communication with students but also with the need to teach the students how to use the tool itself. One finding to arise from the Giesbers et al. (2014) study is the reasoning behind a cohort's uptake of use of a synchronous communication tool can be influenced by three aspects: favourable experience during first use, "perceived affordances" of tool, and "interplay between the perceived efficiency and the nature of the collaborative tasks." As an experienced practitioner, Ng, notes that facilitators need to manage "participants' communication anxiety" as this can be a very important concern. Synchronous communication necessitates prompt replies and as such this can make participants anxious as can the spontaneous nature and fast pace of discussions (Ng 2007). Giesbers et al. (2014) suggest that cooperative student exercises enhanced cohort bonding and the students' feeling of rapport.

From the previous research, outlined above, it is not just about the synchronous communication tool used but it is equally about how the session is facilitated; thus both lecturer and student must play their part in order to achieve a successful educational experience.

3. Perceived problem

Face to face and online Tutorials are provided as a means of supporting students studying at a distance. This paper focuses on the online Tutorials and seeks to investigate if there are any factors which discourage students from participating in online Tutorials and if there are any factors that encourage students to actively participate. The keyword here is, participate, rather than simply attend.

Broadly speaking the authors believe there are a range of categories of student in relation to online tutorials

1. Those who do not feel the need to attend
2. Those who attend and lurk in the background
3. Those who attend and make an effort to participate

So from the authors' perspective they are looking at the factors which can encourage non-attenders to attend, help the lurkers to become active participants and ensure the active participants continue to have a good experience.

There have been a number of attempts to identity technology acceptance models to help measure acceptance levels of online learning amount students. Umrani-Khan and Iyer developed the E-Learning Acceptance Model (ELAM) investigated by Lambie and Law (2016) which focuses on four factors: Performance expectancy, Effort expectancy, Social influence and Facilitating conditions. As mentioned in section 2, the Giesbers et al. (2014) study identified three aspects that can influence a student's use of a synchronous communication tool; two of these three aspects dovetail with the ELAM model. Firstly, "perceived affordances" (Giesbers et al. 2014) of the synchronous tool being used matches with the ELAM models Effort expectancy which takes into account the perceived level of effort required to use the tool (Lambie and Law, 2015). Secondly, "interplay between the perceived efficiency and the nature of the collaborative tasks." (Giesbers et al. 2014) matches with the ELAM models Performance expectancy which reflects the perceived gain in the "teaching-learning process." (Lambie and Law, 2015)

The main question then that the authors seek to address is; "What are the factors that affect student attendance at online Tutorials?"

4. Analysis of results

A questionnaire based survey was carried out with TU100 2016J students. On this presentation there were 3200 students and within this group we were able to survey 920 students. From the survey group we received 127 responses.

The questions asked in the survey fall into a number of categories:

1. Attendance and Attitude to attendance at online Tutorials

2. Level of engagement in online Tutorials

3. Student Perception to their engagement with online Tutorials

4. Access to technology for online Tutorials

5. Use of social Media

6. Overall experience of attending online Tutorials

4.1   Attendance and attitude to attendance

Although we are concentrating our attention on online Tutorials 49.6% of the respondents indicated they had not attended a F2F Tutorial. This compared with 20.5% of respondents who had not attended any online Tutorials.
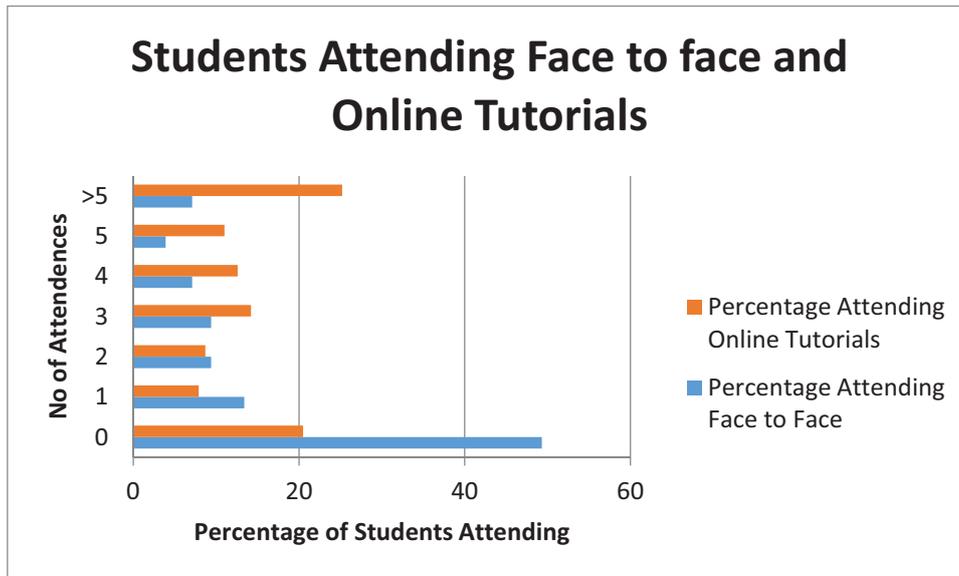

Figure 1: Face to face attendance and online tutorial attendance on TU100

So right away we have some evidence that there are 2 distinct groups:

1.   Attenders and

2.   Non Attenders

This is of interest because the approach to try and get the non-attenders to attend is likely to be different to the approach to encouraging the attenders to keep attending.

4.2   What is a regular attender?

TU100 requires students to submit 5 Tutor Marked Assignments (TMAs) and 1 End of module Assignment (EMA). So active students are likely to be attending one session before each piece of assessment is due on the assumption that each session will cover a least some of the topics needed for the forthcoming assignment. For 63% of respondents TU100 was their first OU course so students will be determining their pattern of participation based on their experiences of attending TU100 Tutorials.

In response to the statement "I am a regular attender at TU100 Face to Face Tutorials" 21.3% of students strongly agreed or agreed with this statement. When we look at the actual number of Face to Face sessions a student indicates they attended we see that 18.1% of students attended 4, 5 or > 5 face to face sessions. So from a student perspective it looks like attending 4 or more Face to Face sessions makes you a regular attender.

In response to the statement "I am a regular attender at TU100 online Tutorials" 59.4% of respondents strongly agreed or agreed with this statement. When we look at the actual number of online sessions a student indicates they attended we that 63.2% of students attended 3,4,5 or > 5 sessions. So from a student perspective attending 3 or more sessions in the online world makes you a regular attender.

Timing of online Tutorials is important. 70% plus of respondents indicate that weekday evenings and weekends were their preferred times for online tutorials with weekends including Sundays. Chetwynd et al (2009) indicated that finding a good time for students to attend an online Tutorial was problematic. So the survey gives us some indication that it is appropriate to offer weekend and evening Tutorials because it is in line with what a significant number of TU100 students want. The Open University has recently instigated a Group Tuition Policy which allows students to sign up for a Tutorial within a given regional grouping. 68.7% of respondents felt that this policy had made it easier to attend online Tutorials. This is interesting in that Giesbers et al. (2014) suggest that offering online meetings/tutorials actually constrains students because it restricts them to a set time and place with the access to a computer and the Internet required. The suggestion from the survey data is that offering multiple opportunities to attend an online Tutorial on TU100 seems to mitigate this perceived restriction with interested students signing up for a session that suits their own availability.

79% of respondents indicated that signing up for a Tutorial was an incentive to attend with 61.8% indicating that they updated their booking if they were subsequently unable to attend. However, in the authors experience typically only 20% of students signing up for a Tutorial (F2F or online) actually attend. There is scope here for an institutional approach to this problem where students are send a message to say "you signed up but did not attend". This is an issue because Tutorials are limited to 20 students with a reserve list in operation. Some students indicated that a reminder would be helpful that a Tutorial was on offer and there is certainly scope for sending students who have signed up for a Tutorial a reminder the day before the event.

4.3 Level of engagement in online Tutorials

Reasons for participating/not participating are important. 48.1% of respondents indicate they feel uncomfortable speaking in the main room with 57.9% of respondents citing "not" wanting to feel unknowledgeable" as a reason. Only 17.6 percent of respondents indicated they would be more comfortable participating if they could remain anonymous. However only 13.7% of respondents indicated they liked working with fellow students in breakout rooms with 54.9% being ambivalent about this. Interestingly when asked to respond to "When I attend a TU100 online Tutorial I refer to be talked to rather than be involved in the Tutorial activities" the Strong Agree/Agree, Neither Agree nor Disagree, Disagree, Strongly Disagree are equally split at around 32%/33%.

When asked to respond to "TU100 online Tutorials do not appeal to me because I prefer to work on my own 13.7% agreed or strongly agreed.

79.4% of respondents felt that Tutorials were useful because they covered material that was needed for a forthcoming TMA and 71.5 % of students agreed that problem solving activities made for a good Tutorial. This is in line with the experience of Lambie and Law (2015) who discuss the role of problem solving activities as a way of engaging students. Similarly, 77.4% of respondents either strongly agreed or agreed that "TU100 online Tutorials provide an opportunity to have module related activities answered." This is again in line with the findings from Goodfellow (2014) which found that students who attend online Tutorials find attendance useful.

69.2% of respondents agreed or strongly agreed that the Tutor running the online Tutorial encourages them to participate with a similar number agreeing or strongly agreeing that the whiteboard in an online Tutorial was well laid out and easy to follow.

Breakout room are a way of handling large groups of students so the authors were interested in student experiences of working with this facility. In response to " I like Breakout Rooms in TU100 on line tutorials because they let me work with my fellow students" only 14.7% of respondents agreed or strongly agreed which is a quite small. Interestingly 54.9% neither agreed nor disagreed. In response to "In the TU100 online Tutorials that I attend the work from a breakout room is brought back into the main room to discuss with the rest of the group" 40.2% strongly agreed or agreed but 48% neither agreed nor disagreed. It would seem that around 50% of students with experience of breakouts rooms seem to be very ambivalent to their worth. This suggests that there are a range of experiences in working in groups with this facility. This is a bit at odds with Lambie and Law (2015) who report that break out rooms are a good way to get students talking and interacting.

4.4 Student perception of their involvement in online Tutorials

Umrani-Khan & Iyer (2009) identified social influence as a factor in the acceptance of E-learning as a legitimate approach to learning. To determine student's perceptions of engaging in online activities as part of their E-learning experience 3 questions were asked with the results shown in Figures 3,4 and 5.
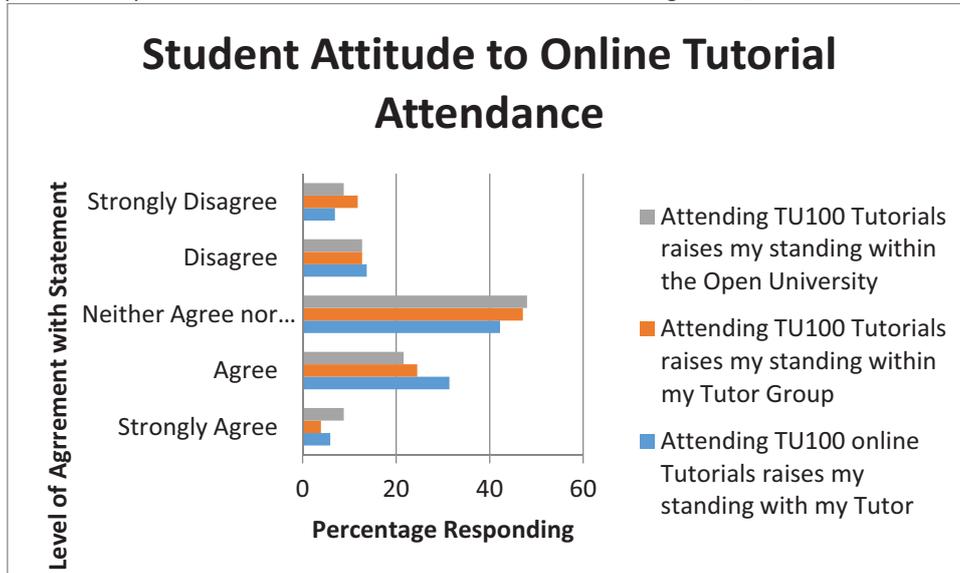

Figure 2: Student attitude to online tutorial attendance on TU100

Perhaps the ambivalent students are a further distinct group. It would appear that 42.2%, 47.1% and 38% respectively are unsure if attending online tutorials raises their standing with their Tutor, raises their standing within their Tutor Group and raises their standing within the Open University. Perhaps this group are the "lurkers" who attend but do not actively contribute. If this is the case, then there is scope for identifying the barriers which restrict their lack of contribution. There also appears to be scope for making it clearer that the OU as an institution values student participation at online Tutorials. If it did not value their participation why would the institution and Tutors put significant effort into developing and delivering online Tutorials? There is also an opportunity to emphasise the importance of student attitude to these factors in forming an active community of practice.

4.5 Access to technology for online Tutorials

The authors were interested to determine the typical range of equipment that students were using to access online sessions. While the TU100 course had a minimum specification for the computing equipment required the authors were interested in specifically determining what the equipment being used to access an online session was and whether or not mobile devices were being used.

The results indicated that 80.6% of students were using a desktop/tower or laptops to access the sessions with 86% agreeing or strongly agreeing that the equipment they were using allowed them to participate in all aspects of an on line Tutorial. Only 11.3% of respondents indicated they used a mobile device to access an online session with only 13.7% saying they did not have a microphone. This information is important because it is clear that the vast majority of students have access to and make us of appropriate equipment so the students who "lurk" in an online session do so for other reasons than lack of equipment such as a microphone.

4.6 Use of social media

The number of respondents clearly indicating they kept in touch with fellow students nationally is low. When asked to respond to the statement "I keep in touch with the students on TU100 nationally using social media only 18.7% strongly agreed or agreed with this. In fact, 71.6% strongly disagreed or disagreed. Similarly, when asked to respond to "I keep in touch with the students in my Tutor Group using social media" only 6.9% agreed or strongly agreed with 80.4% either disagreeing or strongly disagreeing. The authors had made the assumption that social media would be the predominant means of communication. The level of interaction was surprisingly low and there does not appear to have been any significant form of community formed among TU100 students. For those who did keep in touch a Facebook Group was the most popular (39.6%).

The lack of a sense of community is an interesting result to come out of the survey. Self-help groups where students get together to discuss experiences have always been an important aspect of OU study. The survey did not explicitly ask if students were part of a self -help group because the tacit assumption was this aspect of student life had moved into social media, however this aspect of community engagement is not evident from the data. Interestingly in response to "TU100 online Tutorials provide an opportunity to interact with my fellow students" 63.7% of respondents strongly agreed or agreed. Similarly, when asked to respond to "TU100 online Tutorials provide an opportunity to be part of an active online community" 53.9% either strongly agreed or agreed. So students do see some merit in attending online Tutorials to be part of an online community but perhaps this is when the activities are arranged for them because the lack of engagement with social media suggest they do not keep in touch when they are left on their own.

4.7   Overall experience of attending online Tutorials

In order to try and gauge an overall level of satisfaction the survey asked "How has your online TU100 experience met your expectations". 43.1% of respondents answered better than or much better than expected, 35.3% answered their experiences were about what they expected with 21.6% stating their experience was worst or much worse than expected. There is scope for revisiting this question in order to determine a suitable base level of expectation. The authors intend to repeat the survey with a subsequent group of TU100 students.

The survey also asked "My experience attending TU100 on line Tutorials is positive overall" with 66.7% strongly agreeing or agreeing, 19.6% of students neither agreed or disagreed with 13.7% of students disagreeing or strongly disagreeing. So while overall satisfaction rates are good there is a tail of dissatisfied students.

5. Conclusions

While the authors are aware that generalisation from a small number of responses is difficult, the data does seem to provide some points to consider which could lead to Tutors and the institution directing resources more effectively.

Influencing Factors

Tutorial Times

Evening and weekend Tutorials seem to suit most students. This is important as most OU Tutors (Associate Lecturers) are part time. This also answers the question posed by Chetwynd et al (2009) as to when is a good time to get students to attend online sessions. From the perspective of the authors they tend to run online Tutorials in the evening, so, there may therefore be scope for running some of their online Tutorials at weekends. Just as importantly there was no significant demand for online Tutorials during the day.

Access to Technology

The survey has indicated that the majority of students make use of desktop or laptop computers at home or in their workplace with only a small number attempting to use mobile devices such as Tablets or Smartphones. The vast majority of students indicated that they were using a microphone. This is important because it means that the authors could dismiss "lack of a microphone" as a reason for students not wanting to speak during the online Tutorial. This suggests a need for closer investigation of the other features within the online Tutorial environment as possible causes for students' lack of engagement. Although broadband speeds are still a problem for some people there were no specific issues related to broadband speeds as being a factor which limited student participation.

Sub Groups Sub Categories of Participants

Non Attenders

Some students do not attend any online or Face to Face tutorials. It would appear that some students just want to work on their own and this is supported by the comments provided by some students in the survey.

The authors believe that this is a perception that many OU students have. For this group an approach which emphasised the need to demonstrate the ability to work in a group and to demonstrate communication skills may be a good way forward. Employers report the need for employees to be able to demonstrate communication skills so this may be a factor in encouraging students to attend. Building it into the assessment would also be a factor but from the author's experience there will always be a core of non attenders who only want to cover the technical aspects of the module.

Attenders but not participators

Issues raised by students identified include feeling uncomfortable speaking with strangers and not wanting to feel unknowledgeable. Self-help groups have always been a feature of OU study with students engaging in informal groups to discuss course related topics. The formation of the self-help group is often facilitated by the Tutor who circulates information within the Tutorial group. However, with the move towards greater use of electronic medium the use of self-help groups seems to have become less popular. There may be scope for trying a bit harder to help form self-help groups in the hope that students may start to attend online sessions with fellow group members. The authors are reviewing their approach to publicising and forming self-help groups with the view to encouraging groups of 2 or 3 students to form some form of "buddy network" where they feel more comfortable attending online sessions together in the hope that this will alleviate the worry of not being knowledgeable enough to contribute or having to attend sessions with complete strangers.

The survey indicated that students seemed to have a negative attitude to using social media to keep in touch with each other. This was surprising to the authors who expected there to be a greater level of use of this technology. This may point to the lack of a community of practice within individual/cluster groups. With the organisation of online Tutorials taking place within Geographical clusters, there is therefore scope for trying to support self help groups within an individual tutor groups to help students to feel more confident with their peers in an online Tutorial that is open to students on the module across a wide geographical region.

Signing up but not attending

While a Cluster Group Tuition approach offers more opportunities to sign up to tutorials, some students wanted this opened up further to include any online tutorial in the UK, the authors experience differs from this with only around 20% of students signing up actually attending an online Tutorial. The number of students who signed up was always greater than the number who attend. In some respects a Group Tuition Policy makes it difficult for an Individual Tutor to build up a rapport with students within his/her group.

6. Recommendations

There are a number of practical activities that could be carried out by Tutors and actions that could be undertaken at the institutional course team level.

At the institutional level :

1. Reminders to students that they have signed up for a Tutorial
2. Following up reasons for non-attendance when a student has signed up for a Tutorial
3. Emphasizing the benefit of social interaction
4. Keep the Group Tuition Policy under review to determine the effect on Tutorial sign up and attendance.

From the Tutor perspective :

1. Strive to make the Tutorials as interactive as possible in order to keep students interested
2. Encourage students to form self help groups and to attend Tutorials together in order to overcome any anxiety of speaking to strangers

On paper these points look quite achievable but would require commitment and effort on the part of the institution as well as effort on the part of the Tutor. There is also the Tutor perspective to be taken into account. This paper has focused primarily on the student experience but there is scope to look at the problem from a Tutors perspective as well. The authors are currently in the process of producing a survey aimed at TU100 Tutors to gauge their attitudes and opinions to delivering online Tutorials.

Overall the authors feel that carrying out this survey has provided some useful data that reinforces their own experiences. There are still a number of questions with incomplete answers that require further investigation so there is scope for continuing this body of work further.

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