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Student support: Internet training from the perspective of the e-learning professional

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Abstract

In an effort to develop a training programme to assist teaching professionals to migrate towards e-teaching from more traditional modes of teaching, the European Commission (EC) provided a grant Middlesex University who, along with its three partner universities, created a needs survey to determine what aspects of teaching and higher education theories and practice need to be conveyed to the teaching staff. Results indicated that, among other aspects, student support is a critical component for effective e-teaching. The data provide guidance for various components of student support training for teaching professionals. The discussion centres around relevant concepts that may be included in a professional training programme.

Keywords: professional training, student groups, communication, Internet.

1. Introduction

A number of theories on teaching and learning in higher education have focused on the idea that students are becoming more and more likely to accept challenges. The basis of this research is that students may begin to think in more complex ways if support is increased [1], [2], [3], [4]. More specifically, student support may be enhanced through connections and better communication with peers and teaching staff.

Students learn material not only from books and lecturers, but also from interactions of a less structured nature with other students as well as the teacher. The extent to which the teacher is able to facilitate this aspect of learning is important inasmuch as it assists the student to feel satisfied with the instructor. This may lead to higher satisfaction levels with the class material and willingness to ask for help.

There is a growing emphasis in higher education institutions to use information technology (IT) with a particular focus on e-learning as a means to transfer knowledge from teacher to student [5]. This global trend is due to a variety of advantages such as enhanced accessibility to educational resources, increased interactivity, flexibility of learning at convenient times and places and promotion of

international links for research and teaching purposes [6]. With this advance, instructors are increasingly having to navigate and teach using an e-learning environment [7].

Meanwhile, organisations such as universities will continue to leverage technology with the goal of providing online training [8]. Clearly there is a growing demand for teachers to acquire the skills necessary to provide online teaching lest the higher education institutions fall behind technological advances.

Many companies are also using blended learning formats to deliver training [9], [10] rather than e-learning modes only. Potential downsides of delivering training in an e-learning or blended mode compared with the traditional face to face delivery are that interaction among participants will naturally be decreased, trainers may become more concerned with information transfer rather than discussion and significant amounts of effort and planning are needed on the part of the training developers [5].

In 2004, Middlesex University successfully bid for a grant (along with three partner institutions) from the EC to engage in a project titled Asian Distance Education – e-learning Professional Training

(ADEPT). The goal of the project is to foster excellence in e-learning in higher education institutions in Southeast Asian nations. ADEPT hopes to accomplish this by providing for the exchange of e-learning expertise by focusing on the skills of tutors. The four institutions involved with the ADEPT project are Middlesex University in the UK, University of Twente in the Netherlands, Singapore Polytechnic in Singapore and Kasetsart University in Thailand.

The Global Campus (GC) project was created by Middlesex University with several overseas partners. It is an international distance learning programme using Web technologies for postgraduate and undergraduate degree courses. This project exploits advantages brought by the development of flexible learning arrangements for home students and delivers high-quality courses to partner institutions abroad [11]. Accumulated experiences of GC staff based at Middlesex University have lead to interest in developing a training programme for online teaching.

This exploratory study investigated perceptions of teacher support for students. The current research addresses aspects of module structuring and modification based on the student body, frequency of communication, student networks, and what should be addressed in a training from the teachers' perspective.

2. Method

A needs survey was developed consisting of 36 questions and was placed in an online programme called Survey Monkey (SM). SM was used to facilitate the online delivery of the survey as well as to assist in tracking the respondent's affiliation (e.g., University of Twente, Singapore Polytechnic). Questions were of both a quantitative and qualitative nature. The purpose of the quantitative questions was to provide an easy-to-answer survey for the participants. Further qualitative information was gathered in an effort to enrich the results of the survey.

In total, responses were received from 52 participants: 8 from Middlesex University, 18 from the University of Twente, 18 from Singapore Polytechnic, and 8 from Kasetsart University. Not all questions were completed by every participant. Some questions were only viewed by participants after the appropriate (yes/no) response was provided for the previous question. Other questions were presented to all participants but some participants chose not to answer a given question. The data were directly downloaded

by the survey software and were further analysed by reviewing different proportions of responses to each question.

3. Results

For the purpose of this survey, e-tutors were defined as those who do not develop module content but teach already developed material and provide learning support to students in e-learning environments. E-lecturers were defined as those who develop learning content and provide students with support in e-learning. Based on these definitions, the sample consisted of 12 e-tutors and 23 e-lecturers. Seven participants reported engaging in both e-tutoring and e-lecturing and 4 did not report on this aspect of their academic position. The majority of the participants, 30 out of 43, were involved in blended learning. Eleven were involved solely with e-learning and two did not provide information on the format in which they usually teach. Fewer than half, 20 out of 43, of the sample teaches in its native language. Table 1 provides additional demographic data for this sample.

Table 1: Participant sample based on teaching

Level of course taught	
Undergraduate	12
Postgraduate	16
Both (undergraduate and postgraduate)	8
Other	4
N	40
Participation by type of delivery mode	
Blended	30
E-learning only	11
Other	2
N	43
Years teaching in e-learning environments	
< 1 year	9
1 to 3 years	11
3 to 5 years	15
> 5 years	6
N	41

3.1 Module Structuring

Thirty-seven out of 46 respondents attempt to structure their module sessions to accommodate their students' varying needs. Accommodation refers to the ability of the teacher to make modifications to help a specific student. Thirty of the 37 mentioned above accomplish this by giving personal attention to the students. Other

ways the teachers accommodate the needs of students is by maintaining flexibility (25), giving more responsibility to the students (15), providing them with extra time to complete work (14), allowing for group work (13) and/or enrolling them in an entry module on IT skills (5). Some instructors accommodate needs by engaging in more than one of these methods. The majority of the sample, 25 out of the 46 participants, reported that their students come to the module with an understanding of the e-learning environment. For those participants whose students do not come to the module with these skills honed, the e-learning professional provides extra support (12), provides a module on e-learning environment function (11) and/or reports that there are 'staff available for extra support' (8). Some participants engage in more than one of the above types of behaviour in order to assist their students.

3.2 Communication

When asked about the most important aspect of communication and coaching in an e-learning environment, 33 out of 47 of the participants responded that it is frequency of online communication. Collaboration (23 out of 47), tone of notices/emails (19) and expectations or coaching were also considered to be relevant factors (2), but not nearly as important as the frequency of communication. Twenty-five participants in the sample believed that non face to face communication training (e.g., how to communicate in an online environment) could assist in skill development for communication and coaching for e-teaching. Readings on how messages may be perceived were also deemed to be relevant by this sample (24 of 45). Readings may include guidelines on topics such as netiquette, information about the virtual learning environment, psychological perception of the speaker research, etc.

3.3 Student Networks

Questions about student networks (i.e., groups students form to develop friendships and contacts in the field of study) were also asked. Twenty-four members of the sample of 46 were aware that students had formed such networks in their classes. From these 24 participants, 22 were aware of these connections and were able to help develop the networks. This was done, in half of the cases, by organising group work for the students. The other half of the sample responded with answers too diverse to develop groupings.

Another aspect of student networks analysed from these items is related to students at various performance levels working together on module material. Thirty-four of 47 participants were aware that students at various performance levels would work together throughout the module. Twenty-five participants of the sample were able to facilitate this by, in the case of 19 participants, assigning group work. The remaining six participants did not report how they encourage such group work.

Open-ended questions were asked with the aim of exploring how the teaching staff facilitate the use of the student networks. Content analysis [12] was used to analyse these responses with the aid of the software package HAMLET. The input data were included in the full content of these responses. Similarity matrices of word frequencies were produced and groupings of relevant terms under investigation were subsequently submitted to two-dimensional scaling. The output is displayed in a graphic form where the first two reference axes appear as horizontal planes on which labelled points of the terms are projected. On these perceptual maps short distances represent similarities and large distances represent weak connections. Several words related to student networks were placed within the model. The output revealed that 'learning', 'organise' and 'group' are closely linked while 'participation' and 'curriculum' are not in close proximity to the first three terms in Diagram 1.

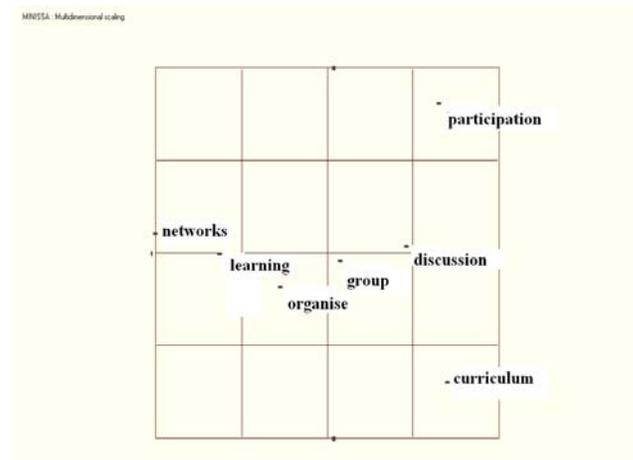


Diagram 1: Output of the two-dimensional scaling

3.4 Teacher Perspective

Issues participants particularly would like addressed in training are varied. They are centred around:

- acquiring 'hands-on' experience providing support
- being able to manage students
- developing the ability to take a 'back seat'
- developing problem solving skills
- being a facilitator rather than a teacher
- better understanding the role of the instructor
- being helpful and caring
- having rapport with students
- having a sense of humor about the module

4. Discussion

It may be argued that student support is one of the primary foci for all teaching [13]. It is important, then, to prepare a training programme that provides a somewhat systematic approach to providing student support in teaching. It is anticipated that a broad based training could be tailored to specific needs in various countries as the needs of academics in one country may be different than the needs of those in another. This discussion will focus on aspects of student support that should be provided in an e-learning training.

The sample rated 'providing student support' as the third most important aspect to be discussed in an e-teaching training. Twenty-seven respondents believed that it is a 'very important' skill for e-learning professionals to possess. While it is encouraging to know that participants feel it is a central factor, it should be noted that student support was only rated as third most important, with communication and design surfacing as more important skills. It might be the case that the teachers consider aspects of communication, for instance, (e.g., accommodating needs) or design (e.g., structuring the session) as relevant contributors to student support. Thus, while student support did not surface as the most important factor, it was always considered to be important and manifested itself in different ways (i.e., communication, design issues) in the needs survey. It may be the case that since student support is such a broad concept, the participants did not rate it as the most important because they considered various aspects of student support to be differentially necessary. It is nonetheless an important construct and one that commands attention in the development and planning of an e-training programme. Further research should explore what aspects of student support are most relevant to teaching staff, and whether this varies based on, among other things, type of course taught, demographics of the students (postgraduate, undergraduate, adult learners) and university culture.

4.1 Module Structuring

To a certain extent, sample participants do try to provide support to students. For example, 37 of 46 members of the sample participants structure their module to accommodate students varying needs. This clearly indicates a focus towards supporting the student to the fullest extent possible by altering class format to cater to specific student needs. It may be the case then that the teaching staff consider the interaction of the learning environment (e.g., design of the module) and the student composition (e.g., age of student, postgraduate or undergraduate course) as relevant factors to be considered when attempting to provide support to students.

4.2 Communication

It appears that the participants are aware that student support is a relevant aspect to effective teaching but may not realise how important it is for the students. This indicates a potential breakdown in communication. As past work has indicated, it is necessary that the student perceive that the teachers are interested in getting to know the students and be familiar with student needs [14]. It seems that this enhances the student's module outcome. As teaching staff transition to online teaching from face to face teaching, effort and attention need to be given to providing guidelines on online communication. As there is a comprehensive research base in communication, this may provide a good place to begin development of the training. The transition of this research knowledge to the online environment should be further investigated.

4.3 Student Networks

As was made clear in the content analysis conducted on the student network construct, 'learning', 'organise' and 'group' are closely related. This intuitively makes sense as networks facilitate group work both within and beyond the university setting. Similarly, those academics who appreciate the group work scenario are likely to rate their students as learning a good deal from the networking. Learning does not necessarily mean learning the module material. It may mean learning how to negotiate with others in the workplace environment and providing the opportunity to liaise with colleagues. Additionally, those teachers who are able to organise the learning environment to facilitate networks are more likely to rate such networks positively.

On the other hand, 'participation' and 'curriculum' are not closely linked with the former three terms nor with each other. This finding is more interesting. It is possible that the teachers' perceived participation of students in the module is unrelated to the networking the students are able to do. That is to say, the development of networks is possibly unrelated to student participation in the module. Furthermore, curriculum is developed, for the most part, by the module leader. The module leaders' perception of how students develop networks should not necessarily be linked, then, to the module. Instead, networks are viewed by the participants who are teaching staff as facilitating learning, are naturally groups, and can form in an organised fashion. However, module curriculum, module participation, and perhaps to some extent how well the student does in the module, are irrelevant to student network development. One other point of note is that few participants spoke English as a native language. It is possible that the term 'network' is not a common one in their vocabulary. This is represented by the fact that words related to 'networks' are closely placed (i.e., learning, organise, group) but that network itself was not perceived by the participants as being the comprehensive term for this formation of student groupings.

4.4 Teacher Perspective

For the most part, the participants interest in learning about student support centre around development of greater understanding of student needs. For instance, being helpful and caring or receiving guidance on how to motivate students online fall into a category of social skills. At the same time, there is interest in how to guide students in devising their own study skills, being able to play more of a facilitation rather than teaching role, and being able to manage students. It might be best to develop a training programme in which particular social skills that are relevant in the learning environment are refined. Additionally, though, providing information on how to guide teachers through the more practical realms by allowing training to cover social skills in an online environment may be useful. It may also be worthwhile to provide information on student learning styles, guidance on how to motivate students online, ability to create interest in a topic, insight into possible problems students may have with the module and information on how to help develop self-study skills in a training programme. Topics such as the ones mentioned above may assist the teaching professional to develop a better

ability to understand the students thus helping them to learn more effectively.

5. Conclusions

It is necessary to have student support in learning environments be it virtual or face to face, yet what remains to be seen is how the teacher may or may not facilitate this support. Furthermore, how the teacher accomplishes module structuring, development of student networks and enhancing communication are integral features of a strong learning environment. A training programme focusing on student support should provide information on the weak relationship between networking and module outcome and the importance of developing online communication skills. It also appears that encouraging the module leaders to be flexible and willing to alter module design based on student composition would be beneficial.

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