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Citation: Sloan, Diane, Porter, Elizabeth, Robinson, Karen and McCourt, Karen (2014) Using e-learning to support international students' dissertation preparation. *Education and Training*, 56 (2/3). pp. 122-140. ISSN 0040 0912

Published by: Emerald

URL: <http://dx.doi.org/10.1108/ET-10-2012-0103> <<http://dx.doi.org/10.1108/ET-10-2012-0103>>

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Using e-learning to support international student's dissertation preparation.

Abstract

Purpose – a research paper on the design and implementation of an e-learning resource responding to the globalisation of education. The paper focuses on the challenges presented in learning and teaching on how to support international post graduate students undertaking the specific task of a dissertation.

Design/methodology/approach – using findings from 250 postgraduate students, 40 supervisors and 2 module tutors the research identified the content and language issues faced by students and recognised the need to design an enabler supporting the latter as independent learners and the academic staff delivering support.

Findings – the e-learning tool provides an independent learning tool which addresses student concerns relating to the process and content of structuring a dissertation and the function of language. Initial responses have been positive from both staff and students in respect to providing a source of student support and feedback.

Originality/value – the research shows how the Dissertation Game Model (DGM), evolved into an e-learning resource supporting student understanding of the content, structure, planning and writing of a dissertation. The e-learning tool focuses on helping international students understand what the generic contents of each chapter of a dissertation should contain and supports them in engaging in research as a transferable skill.

Keywords: dissertation, dissertation game model, e-learning, international students

Paper type: research paper

Introduction.

As Altbach and Knight (2007, p.290-292) state ‘globalisation is the context of economic and academic trends that are part of the reality of the 21st century...’. The growth in the globalisation of education is also increasing, the British Council’s research *Student Decision Making Survey*, carried out over the last three years, canvassing 115,000 students from 200 countries, identified that those students studying in the United Kingdom (UK) did so on the basis of quality of education, representing the highest rating of any country on this criterion (Morgan, 2010). As a result it is possible to see a significant change in the educational population of English speaking countries (Skyrme, 2007) with the number of students emerging from China increasing tenfold over the last thirty years, and the UK emerging as the second highest receiver of international students (Diamond *et al.*, 2011).

The implications of the diverse cultural and educational challenges the globalisation of education presents to practitioners, institutions and students is recognised within the literature ranging from emotional (Ryan and Vite, 2009); teacher response (Miller, 2007; Zepke and Leach, 2007); English writing (Bruce, 2005; Haggis, 2006); through to supporting the student in their learning journey through study skills development (Carroll, 2002; Bartram, 2008) and specific subject support as in support for the dissertation (Paltridge and Starfield, 2007). How to support students from diverse cultural and learning contexts presents major challenges to the learning and teaching agenda and from the perspective of this paper, the pedagogical tools required to facilitate effective learning. Acknowledging the work of Paltridge and Starfield (2007) and addressing learning challenges identified within the author's institutions, this research paper has chosen to concentrate on one particular academic task presented to the student during their period of study, that of the project or dissertation, from this point on referred to inclusively as the dissertation and assess the impact of the introduction of an e-learning tool to support the dissertation learning process.

The structure of the paper begins with establishing the current literature on the challenges students face when identifying and writing a masters dissertation, concluding with a research question which informs the remainder of the paper. This is then followed by an outline of research and findings carried out with a group of post graduate students, module tutors and supervisors to establish opinion relating to the delivery of dissertation support in a post 1992 new university. The paper concludes by presenting how an e-learning tool was designed and developed to provide additional added value support for students undertaking a master's dissertation.

Literature review

As identified by Anderson *et al.*, (2006) the literature on dissertation writing is predominantly framed within the PhD and undergraduate context yet between 1995-6 and

2002-3 there was a 40% increase in students enrolling on Masters programmes (Sastry, 2004, p. 60). Consequently the majority of international students selecting to study in the UK will, as part of their undergraduate or postgraduate study, be required to undertake a dissertation. They will share the common characteristics of determining the focus of the work, independent learning with support from tutors, an element of data collection, culminating in a piece of work which demonstrates prolonged in-depth engagement; reflecting the need ‘...to produce work ready graduates who are, amongst other things, more effective, independent and confident self-directed learners.’ (Todd *et al.*, 2004) Map these learning outcomes to the context of the international student, where the literature clearly identifies the problems international students encounter with writing at Masters’ level (Casanave and Hibbard, 1992), different contexts and conventions of academic writing (Ballard and Clanchy, 1997; Warwick, 2007; Sloan and Porter, 2010), and it is no surprise that:

For the vast majority of students, the dissertation is by far the most challenging piece of academic work that they have attempted or are ever likely to attempt in the future.’ (Huang, 2007, p.31)

On reviewing the literature Anderson (2006, p.154) identified supervisor concerns of students struggling with the challenge of identifying a project ‘...which had been well conceptualised and had a very clear set of aims.’, and ‘... providing a convincing rationale for key decisions and for any conclusions drawn from the study.’ Their work further identified the tendency of students to be overly descriptive at the expense of the analytical approach required in both the researching and writing up of a Masters dissertation. Spear (2000) highlighted the issue of the students need for prompt and constructive feedback, deduced from student feedback identifying inadequate feedback, often received too late and at times destructive in nature. As identified by Kumare and Stracke (2006) from a pedagogical perspective ‘...the best feedback challenges, invites, corrects and provokes students to improve their research and communication.’ As a possible solution to the latter Paltridge (2002), recommends that

dissertation students should be exposed to exemplars of texts as possible models on which to base their writing.

Alternative solutions to how to address this dilemma can be identified within the literature. Dysthe *et al.*, (2006) advocates a three pronged approach including combining supervision groups, student colloquia (self-organised student groups) and individual supervision. Engebretson *et al.*, (2010) in their paper discussing the massification of education in Australia, interestingly discussed and identified a successful supervisor as one who developed ‘...practical strategies for helping students how to construct a literature review, how to design a research project, how to write a method chapter, how to analyse data and how to write in a scholarly way.’

For the tutor the implications of the widening participation agenda and increasing numbers of international students is often manifested in high volume requests for more in-depth and time consuming meetings. In practise to produce an independent and autonomous learner requires extensive, and expensive, preparation (Hurd, 1999), and as identified by Edwards (2006) input above and beyond the standard staff timetabled activities. The recognition of the need to identify and put in place enablers to support both staff and students is an emerging in the related literature:

The challenge is, through these brief encounters, to become acquainted with the students’ learning needs and style, and to rapidly formulate targeted interventions that facilitate the dissertation process...’ (Rowley and Slack, 2004, p.177)

Both widening participation and international students can benefit from the use of information and communication technologies where feedback, if written electronically, can be read at a later stage where necessary, using assistive technologies.’ (Heinze and Heinze, 2009, p.295)

This paper presents research with staff and students, the findings of which attempts to address some of the debate identified in particular:

One often highlighted difficulty relates to students’ need to build up essential skills and capacities to write with clarity and confidence in a second language.

Mean-while, they also need to develop understanding of the conventions of academic writing practices in their field of study, as well institutional expectations and standards of thesis writing at their degree level. (Li and Vandermensbrugge, 2011, p.195)

The aim of the research paper is to respond to the debate identified within the literature on how to support international students in their understanding of the structure and conventions of dissertation writing. This will be achieved through the two objectives of:

- supporting international students in their understanding of the structure and conventions of dissertation writing
- provide targeted intervention, through developing an e-learning tool which provides additional support outside one to one tutorial support and provides students with interactive information, exemplars and immediate feedback

This research paper presents a solution to support the design and delivery of dissertation education through asking the question: *Can an e-learning tool be developed to support dissertation delivery and support for international students?*

Research Method and Findings

The Dissertation Game Model (DGM) initially emerged from the expertise and practical experiences of two academics, English for Academic Purposes (EAP)/Academic Literacy specialist and a subject specialist, working together to support the learning needs of international students working on Postgraduate (PG) dissertations. The context for the development of the e-learning tool reflects a post 1992 University recruiting approximately 250-350 (approximately 95%) international students to PG study with an IELTSs of 6.5. The traditional delivery of dissertation preparation involves identification of the assessment criteria, reference to dissertation guide lines, supervision and more generally, delivery through a series of lectures and seminars/workshops that cover aspects of each chapter in more detail. How to design a tool to support this process was informed using fieldwork with

both students and staff using both qualitative and quantitative data collection methods. In order to establish staff and student opinion the following data collection activities were carried out:

- unique to previous studies referenced the data collection incorporated observation of the two module tutors during lectures by the English language specialist, primarily to provide supporting data on student behaviour and indirectly to contribute to the questionnaire and focus group question design
- in line with University ethics procedures, following completion of the module delivery and submission, students were asked to volunteer to take part in focus groups. Two groups of seventeen students participated in recorded semi-structured focus group interviews. Group interviews were used to ensure a non-threatening or negative context, providing an informal approach to facilitate capture of opinions and views. The purpose was to establish an understanding, from a language and process perspective, of what students found difficult in deciding a research topic, identifying objectives and in reporting their findings
- meetings with the two module tutors responsible for designing and delivering the module
- distribution of a quantitative data collection questionnaire to forty dissertation supervisors involved in the marking and second marking of the submitted work. Acknowledging the pressures of time and volume of marking, the questionnaires were distributed simultaneously with the dissertation and marking sheets. This method was adopted to facilitate ease of data capture, accuracy of answers and presentation of findings.

The results of interviews were analysed, reflecting the approach of supporting literature (Todd, 2004; Huang, 2007) using grounded theory approach (Mason, 2002; Olsen 2012)

where the research team carried out fine-grained reading and annotation of the scripts in order to identify differences and areas of commonality. The research team met to test respective readings and identification of emerging themes. The questionnaires were analysed using Excel.

Lecture observation

As a result of the observation, shadowing, of a series of dissertation lectures revealed that international students were reluctant to ask questions, though encouraged to do so. Within the literature this corroborates the work of Cronin (1995) which highlights international students' reluctance to ask questions when they do not understand something in taught sessions; and Ouyang (2006) and Thorpe (2006) who reported that for many international students the "harmony" of the class is seen as more important and that asking questions disturbs that harmony.

Student feedback

Discussions in the group interviews with students revealed the following issues:

1. a lack of knowledge of the vocabulary used to describe the dissertation learning and assessment criteria.
2. unfamiliarity with the style of academic writing used in the Dissertation Guidelines.
3. the need for more examples of appropriate writing styles and structure
4. opportunity for additional review and feedback.

As identified earlier in the work of Casanave and Hibbard (1992), from a student perspective these led to a fundamental lack of understanding of the functions they had to fulfil in order to map content to the learning and assessment criteria. In addition linking to the work of Ballard and Clanchy (1997) it was also identified that once an understanding of

the criteria was achieved, students varied in their knowledge and use of the language structures and vocabulary necessary to fulfil those functions

Dissertation Module Tutors

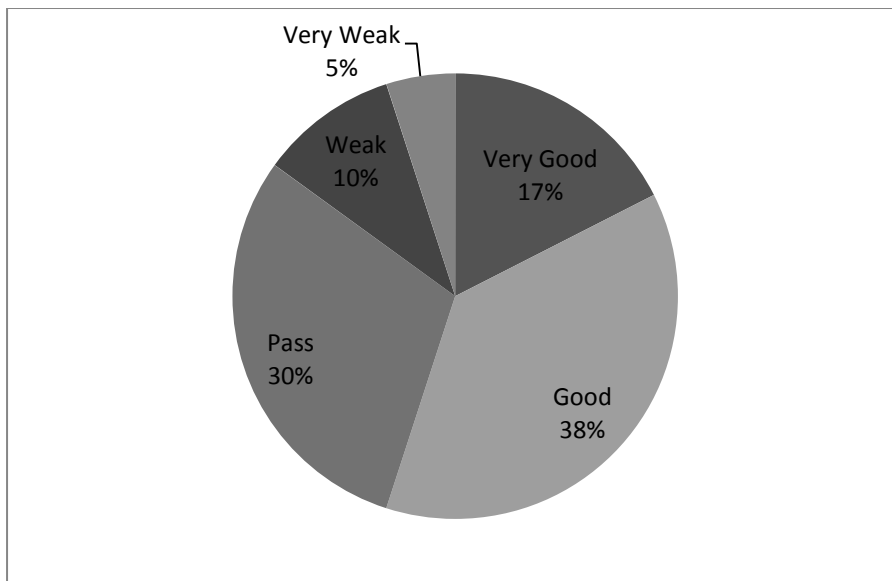
Interviews were carried out with the two tutors delivering the masters dissertation module, the findings below are discussed and related to the literature review. Reflecting the order of the delivery and content of the dissertation module's lecture schedule the principal areas of weakness were highlighted as follows. The tutors focussed on how students struggled with achieving focus on the topic and the research objectives. This links to the work of Anderson (2006) identifying supervisor concerns regarding students' inability to identify an appropriate topic of investigation and the ability to present this within a framework of explicit aims and objectives. Anderson (2006) goes on to discuss the weakness of descriptive material as opposed to discussion underpinned by academic rigour and research. This was corroborated in points identified by the module tutors who commented on student inability to link original aims and objectives to the literature review and subsequently the link between the final results and the work of any author(s).

Additional areas identified on a similar theme identified weakness in ability to justify and discuss choice and limitations of methodology, discussion of results and the link between the conclusions drawn and prior research. These comments support the findings from the students, in that the module tutors felt that many students did not demonstrate sufficient understanding of the assessment criteria. The latter linking to the work of Li and Vandermensbrughe (2011) in respect to understanding of academic writing practices for international students.

Dissertation Supervisors

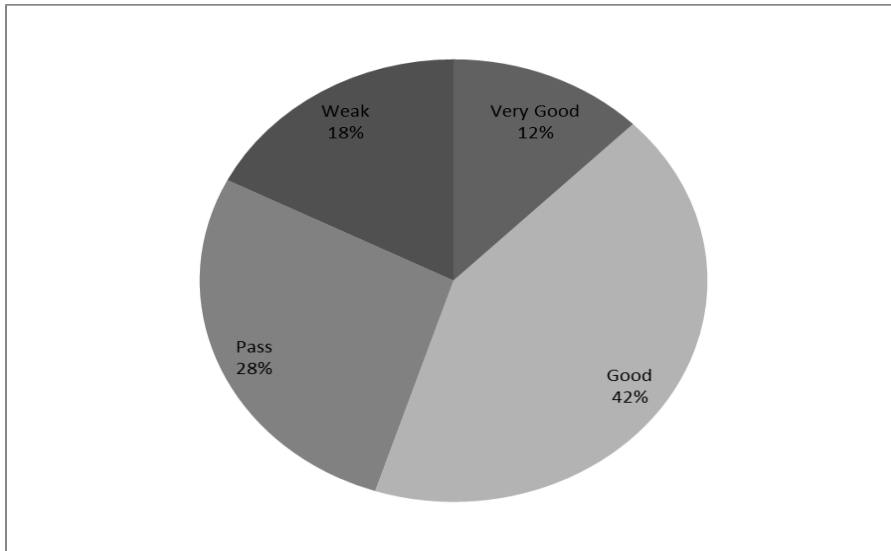
Following the submission of the dissertations, questionnaires were issued to the forty supervisors during the marking of the dissertations and were processed using Excel. Graphs 1-4 present and discuss in the context of the literature key areas of weakness identified.

Graph 1. Discussion of the link of literature review to research objectives.



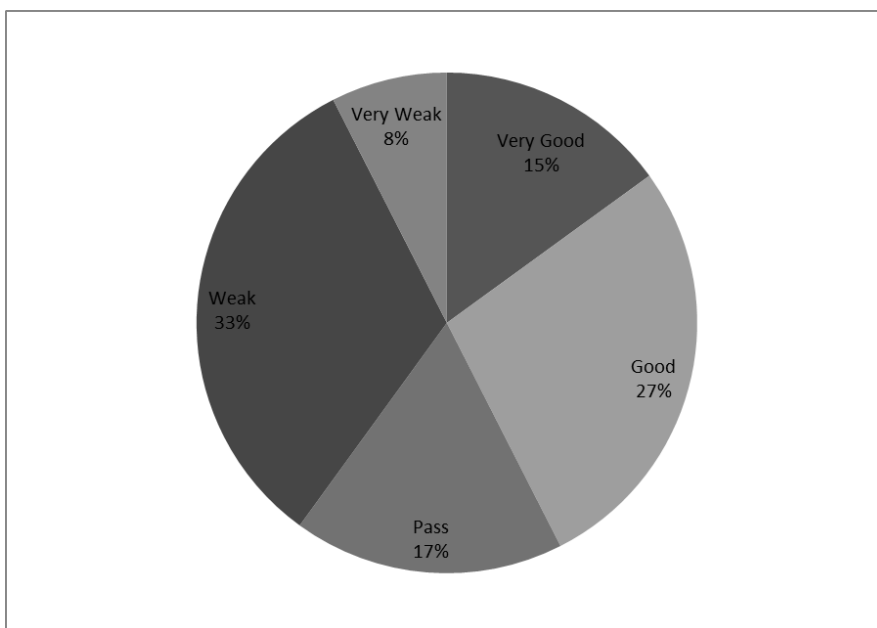
Forty five per cent of the tutors identified as an area of concern the ability of students to link the literature to research objectives. This corroborates the findings from data collection carried out with both the Module Tutors and the literature review where international students struggle through a lack of understanding of the function of the literature review in the dissertation and the need to underpin their research with academic theories, principles and frameworks (Anderson, 2006). In addition, the same points emerged in explaining the performance of students when discussing the limitations of the chosen methodology, Graph 2.

Graph 2. Discussion of the choice of methodology

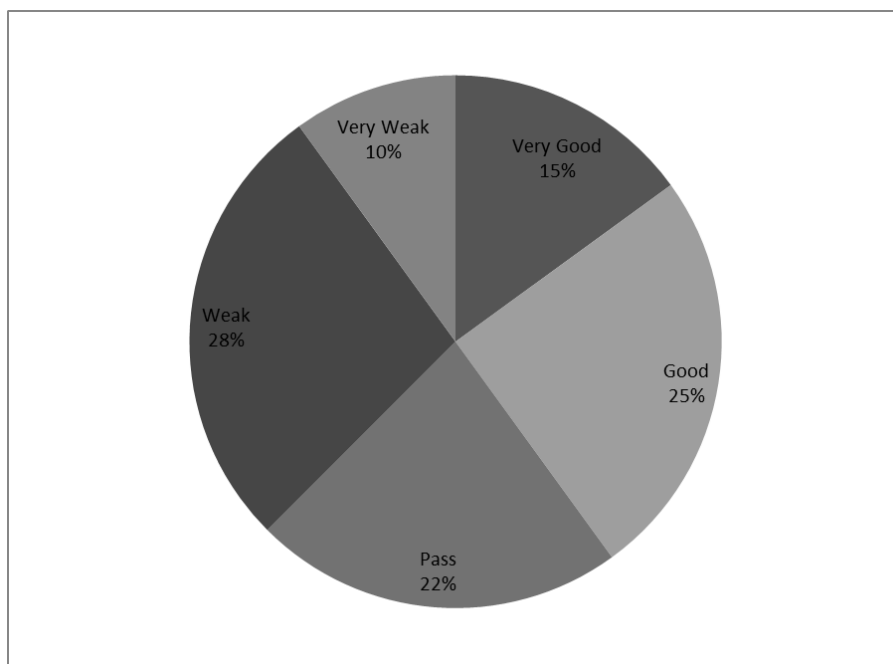


Analysis showed that the main weaknesses were found to lie in the final two chapters of the dissertation, shown in Graphs 3 and 4. The supervisor feedback showed that forty per cent of students did not make a clear link between their findings and those of authors mentioned in their literature review. Thirty eight per cent failed to link their own conclusions to those reached by other authors and over thirty per cent of the students did not discuss the implications of their research.

Graph 3. Discussion of results linked to literature review



Graph 4. Discussion of conclusions linked to literature review.



The DGM was therefore developed in response to the outcomes of research with both staff and students that highlighted the challenges faced by international students undertaking a dissertation in understanding:

- the process of reaching a research topic, identifying objectives and in reporting findings,
- coupled with understanding the complexity of language functions required within the structure of dissertations.

The design and development of the Dissertation Game Model (DGM)

The aim of this paper was to respond to the debate identified within the literature on how to support international students in their understanding of the structure and conventions of dissertation writing. It is a direct response to the call by Engebretson (2010) that tutors need to identify practical strategies to support students. The following section therefore presents a practical solution and addresses to the research question: *‘Can an e-learning tool be developed to support dissertation delivery and support for international students?’*

The resulting Dissertation Game Model, developed from its initial paper based conception through to an electronic based on-line learning resource, achieves this and addresses the two objectives of:

- supporting international students in their understanding of the structure and conventions of dissertation writing
- provides targeted intervention, through developing an e-learning tool delivering additional support outside one to one tutorial support providing students with interactive information, exemplars and immediate feedback

Acknowledging the literature review and the above findings from both staff and students, the resulting DGM acknowledges the work of Sloan and Porter (2010) which identified that students engage and participate in added value activities to support their learning when they appreciate the context within which those skills are taught. Inherent in the design of the DGM was therefore the need to support students in understanding dissertation structure and functional language. Additionally an integral part of the design, in response to the call within the literature of Paltridge (2002) and the student feedback, was to provide exemplars which would illustrate style, language and level. In respect to the work of Kumare and Stracke (2006) and in response to the student feedback, both of whom identified the need for immediate feedback and review, the DGM was designed to provide immediate feedback to the student on how they had performed in the respective tasks. The DGM provides an e-learning tool which utilises student adoption and use of alternative learning mechanisms to support independent learning addressing the call within the literature from (Rowley and Slack, 2004; Heinze and Heinze, 2009)

Context of the Dissertation Game

To achieve this the DGM was developed to provide staff with a solution facilitating the mapping of the required content, assessment criteria and learning outcomes of the dissertation process using a ‘fun’ research topic to contextualise the learning for the student. The DGM focuses on helping the students understand what the contents of each chapter of the dissertation should contain. In response to the work of Li and Vandermensbrugge (2011), the DGM explicitly explains the role of each chapter and the necessary content, and more significantly for the international student and in response to the work of Huang (2007) and Hyland (2002) provides students with models of language to enable them to adapt their own usage when reporting on their research. Responding to the recommendations made by Huang (2007, p.36) *‘For lecturers, it would be very helpful if they could develop a model for critically analysing a subject, or give examples to the students...’* this is achieved through example and practice, where the students are introduced to a process of exemplification and more importantly a series of exercises to facilitate understanding of the process, content and eventual outcomes of their research mapped against dissertation learning and assessment criteria.

Initially developed as a hard copy pedagogical tool the sections were designed to introduce a generic model for staff to use to address and facilitate student learning in respect to the issues identified above. The success of the hard copy implementation led to the recognition and response to the call within the literature by Rowley and Slack, 2004 and in particular by Heinze and Heinze, 2009 of the development of an e-learning solution to support dissertation preparation. A combined project between two post 1992 Business Schools supported by Higher Education Academy external funding, facilitated the development of the DGM using the software Articulate into an interactive e-learning tool. The resulting e-learning tool allows the student to independently work through a series of

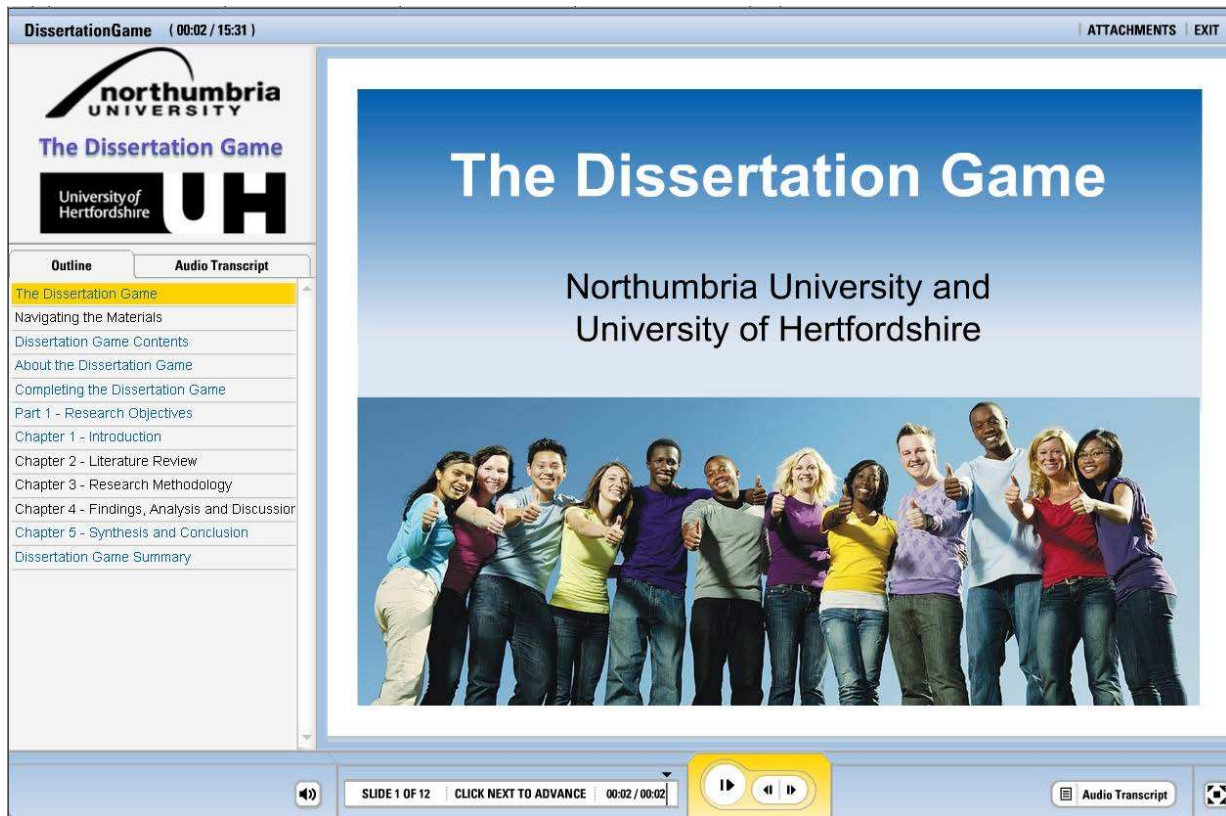
screens designed to address the generic stages involved in identifying and structuring a dissertation.

The topic chosen for the DG Model is deliberately non-business specific: “*The impact of cultural change on international students in postgraduate education in the UK*”. The decision to choose a non-business specific topic was taken after consideration that the game should recognise the globalisation agenda and the resulting diversity of students. The example would therefore provide inclusivity for international postgraduate students following different Masters programmes and that Game’s research topic was one which would contain an element of humour, be readily understood by all students and yet also be one with which they could easily engage. This acknowledged that international students come from differing educational backgrounds, cultures and, for the majority, their first experience of studying outside their home country. They have personal experience of cultural change in the context of their studies and it was therefore assumed they would readily identify with the chosen research topic for the DG Model, both emotionally and intellectually. Furthermore, discussion of the topic does not depend on knowledge of specific business theories, frameworks and principles. This indirectly and more importantly allows students to focus on both the functions that they must fulfil to satisfy the DGM tasks, assessment criteria and the language that can be used to express those functions.

Structure of the Dissertation Game Model (DGM)

The Dissertation Game Model has an introductory element and then has two parts Part 1 - introduces the students to forming research objectives and Part 2 - introduces the students to each chapter of the dissertation. Both are shown in Figure 1 and discussed below.

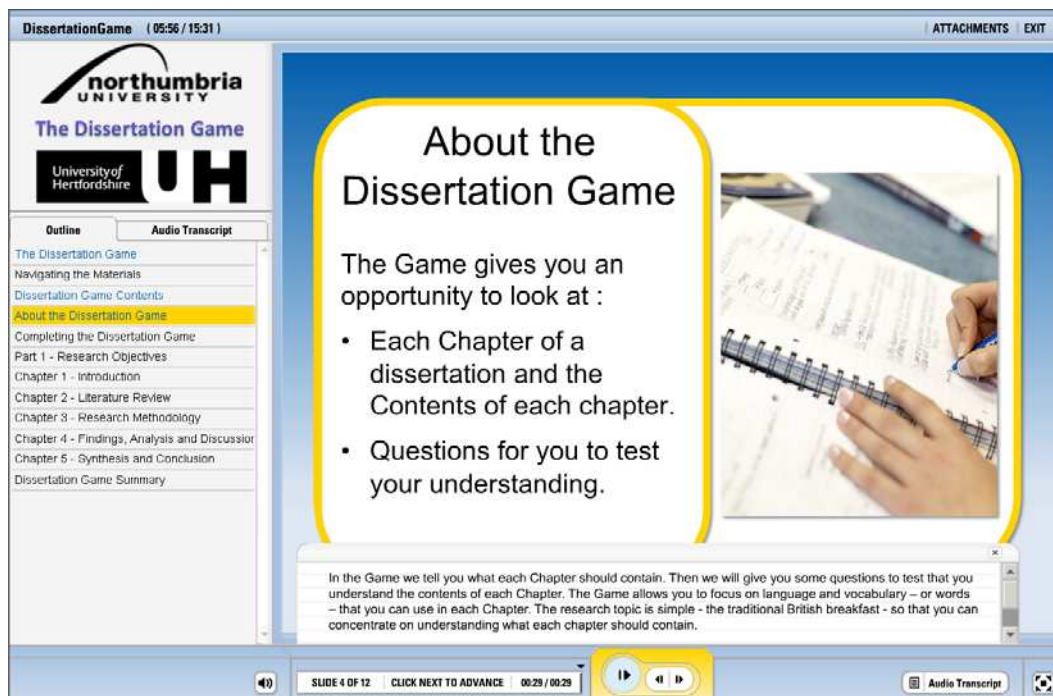
Figure 1. Introduction to the Dissertation Game.



The introduction to the DGM is a menu option, provides an audio guide which explains verbally and provides an audio transcript, explaining the overall outline of the game and participant instructions. The main screen comprises of the content and work area for the student with the left hand representing the sections (chapters) to work through. Acknowledging the variance in language skills, an additional feature was added where, if required, the students are able to open an audio transcript of the verbal commentary. From part one through to Chapter 5 the students engage with questions on the screen relevant to the section. Students are presented with between 10-15 questions, with an additional question on reflective practice, once submitted the students are also able to print/email the results in order to keep a record for themselves and if appropriate to receive formative feedback with their tutor. The structure of the game follows the format of beginning with an explanation of the content of each chapter; this is then followed by a series of questions with answer choices

from which the student has to select the correct answer in order to test their understanding. As a result the game facilitates the students in understanding both the content and in response to Li and Vandermensbrugge, 2011; the language, vocabulary or words that should be used in each chapter. The aim is to use the simple example so the students can concentrate on understanding what each chapter should contain. The Menu option ‘About the Dissertation Game’, shown in Figure 2 (also illustrating the Audio Transcript option), explains the game and how the students will be asked questions to allow interaction and provide feedback on the answers.

Figure 2. About the Dissertation Game



Part 1 - introduces the students to forming research objectives.

Part 2 - introduces the students to each chapter of the dissertation and is composed of five sections: Section 1 Introduction Chapter, Section 2 Literature Review, Section 3 Research Methodology, Section 4 Findings, Analysis and Discussion, Section 5 Synthesis and Conclusion and ends with the Dissertation Game Summary.

The following slides illustrate the screens relating to Initial Planning and completion of Chapter 1 which are supported by an online and audio narrative explaining the underlying processes.

Figure 3. Research Initial Planning

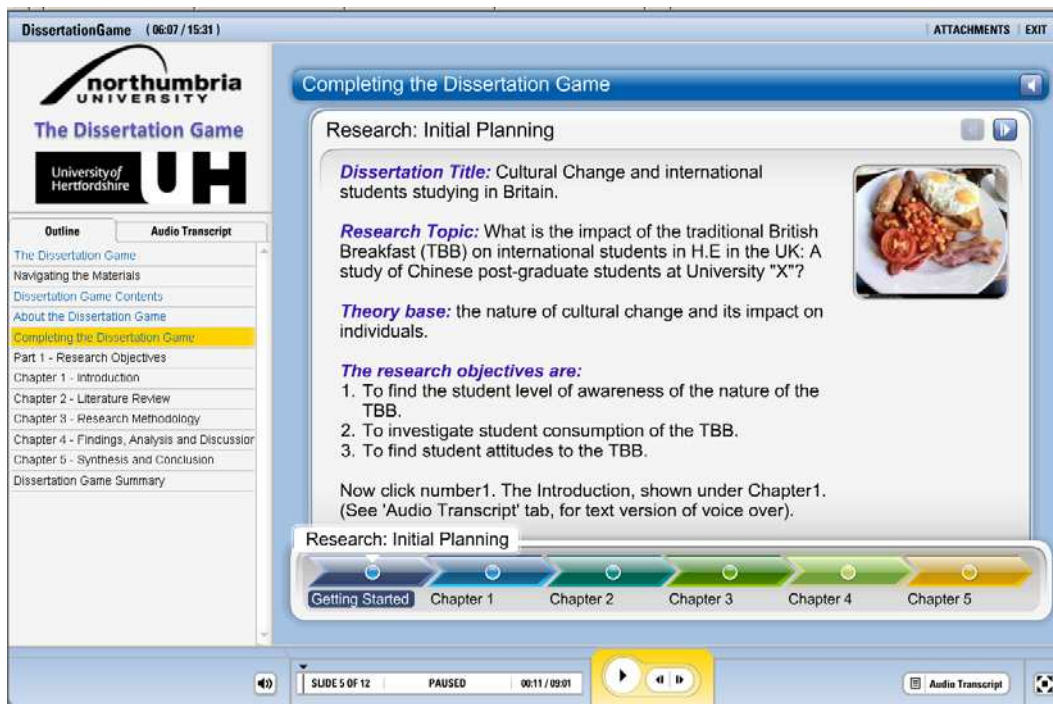
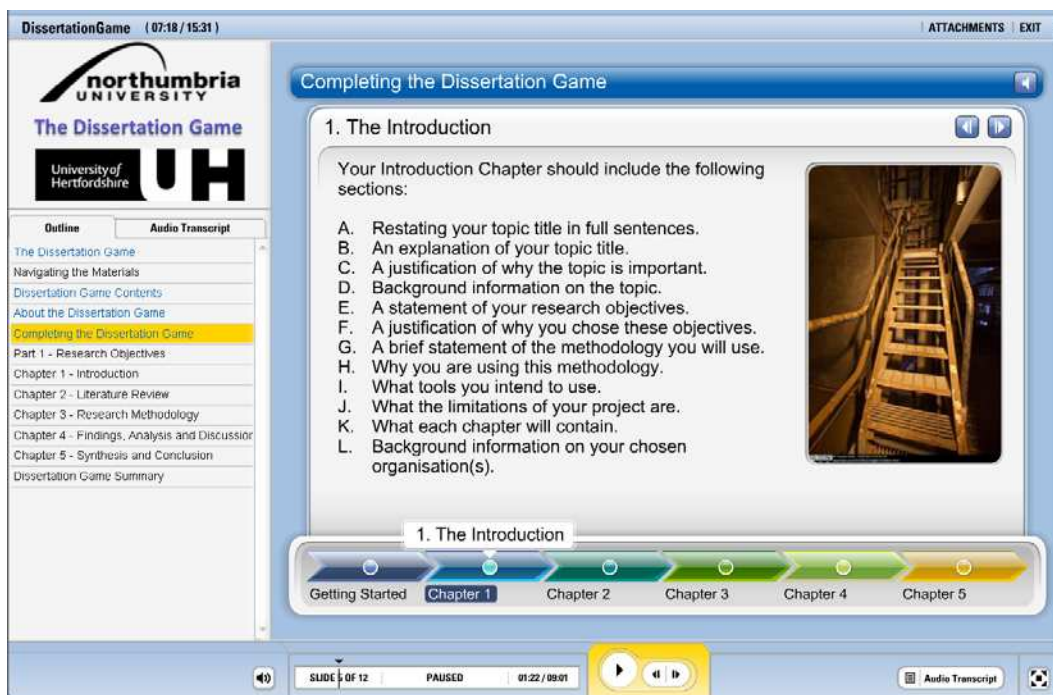


Figure 4. Chapter 1. The Introduction



At this point the student is introduced to the generic content of Chapter 1 ‘The Introduction’ and is provided with a list of features labelled A to L, for consistency this approach is followed for the remaining Chapters. Once the students have read the screen and listened to the narrative for each Chapter they are then invited to participate in answering questions to challenge their understanding of content. To ascertain the level of understanding the students are asked to select the correct option for the given statement. A key feature of the DGM, responding to the work of Spear (2000) and Kumare and Stracke (2006) on feedback, is that the e-learning tool is interactive and on submitting their answer instant feedback is obtained either confirming the answer is correct, or more importantly asking the student to retry. Figures 5 and 6 illustrate an incorrect answer and the feedback given, Figures 7 and 8 illustrate a correct response and feedback.

Figure 5. Student questions and input for Chapter 1.

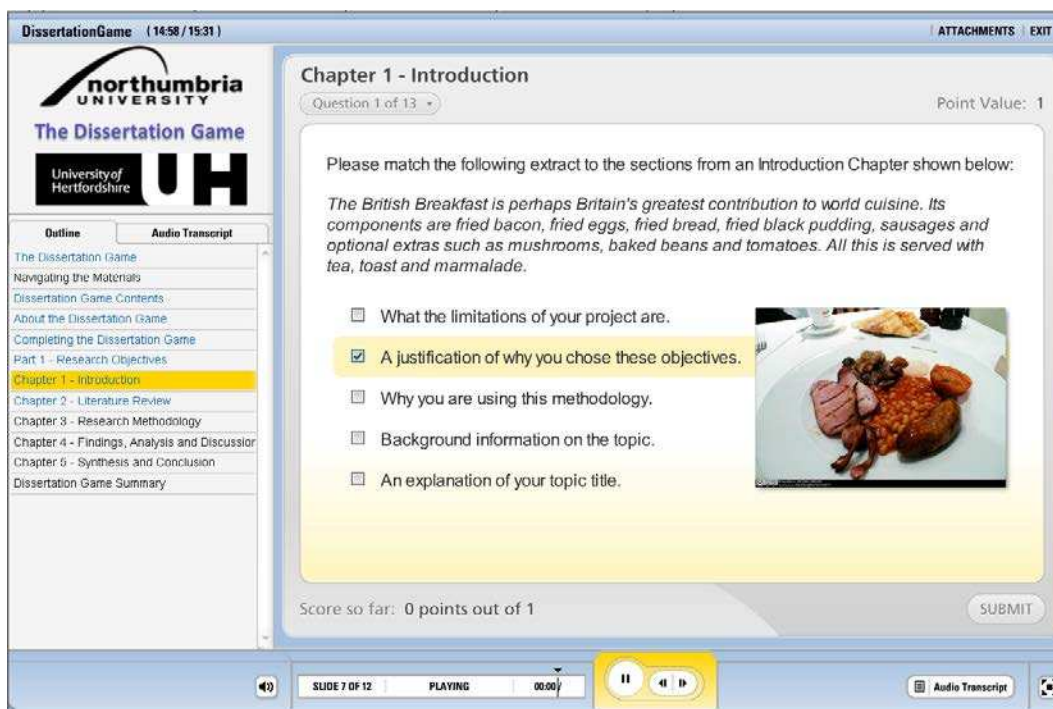
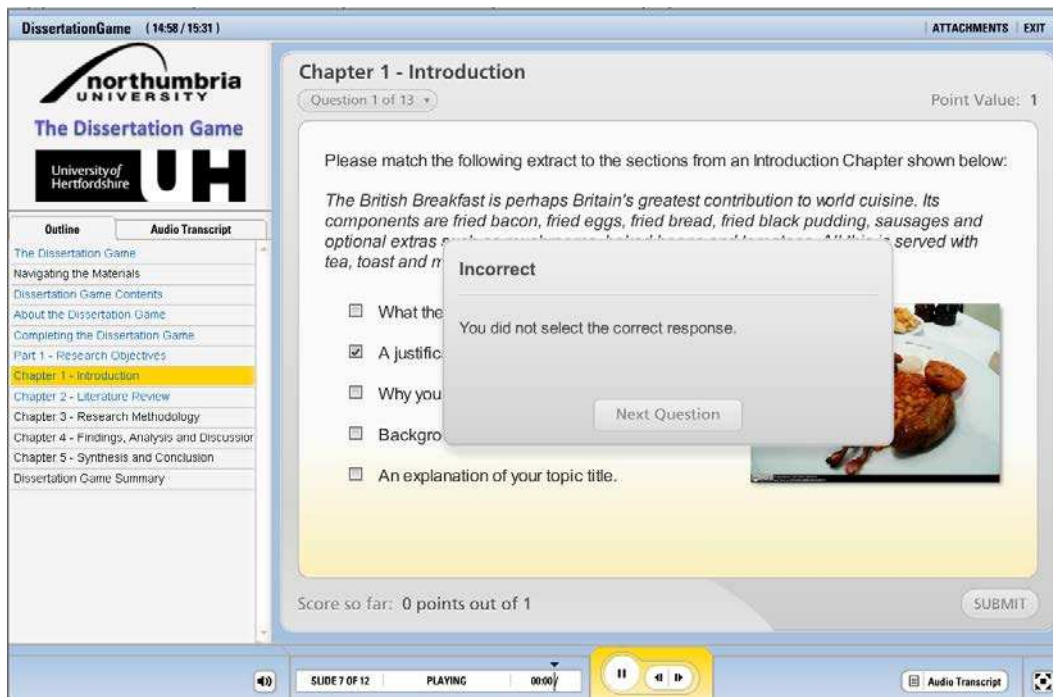


Figure 6. Response to incorrect answer



Figures 7 and 8 illustrate a correct response and feedback.

Figure 7. Correct student response

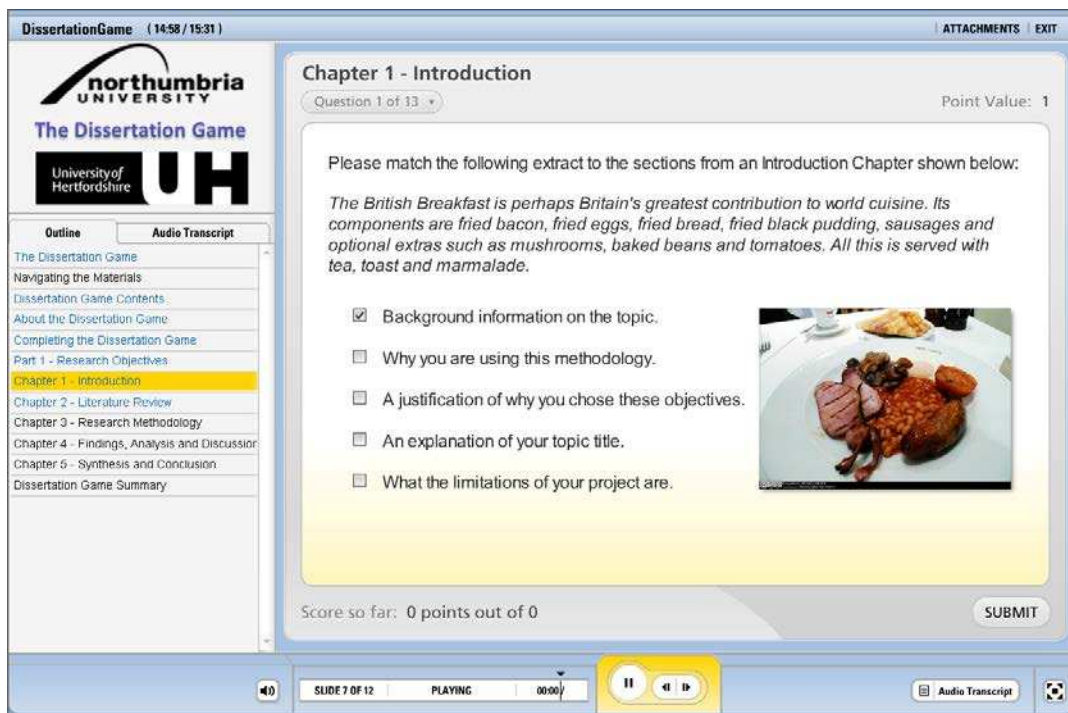
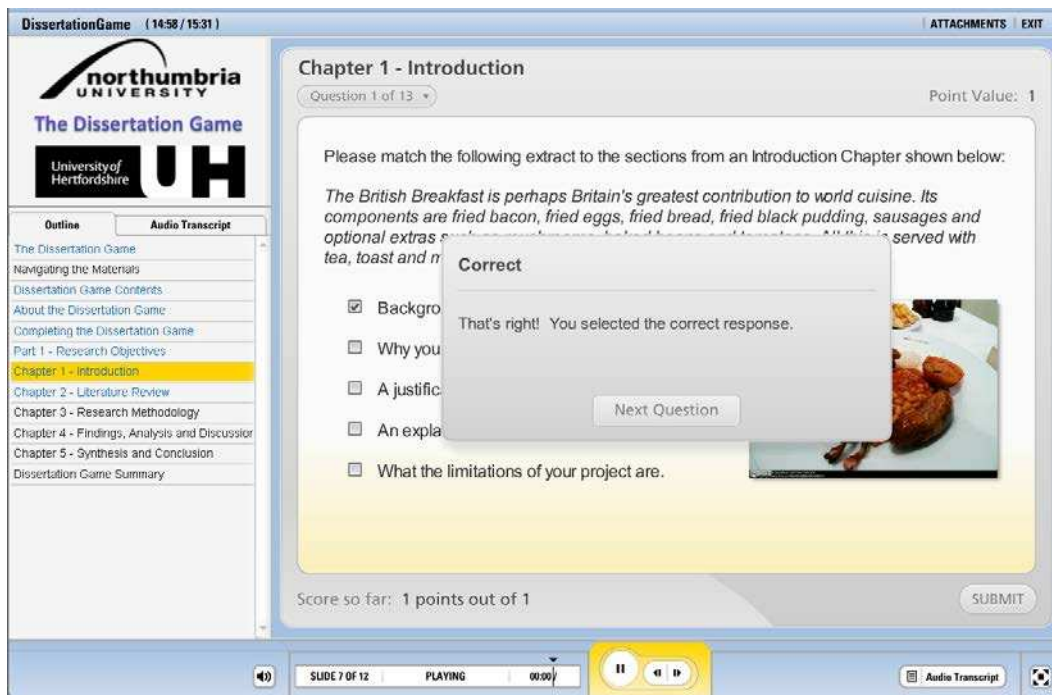
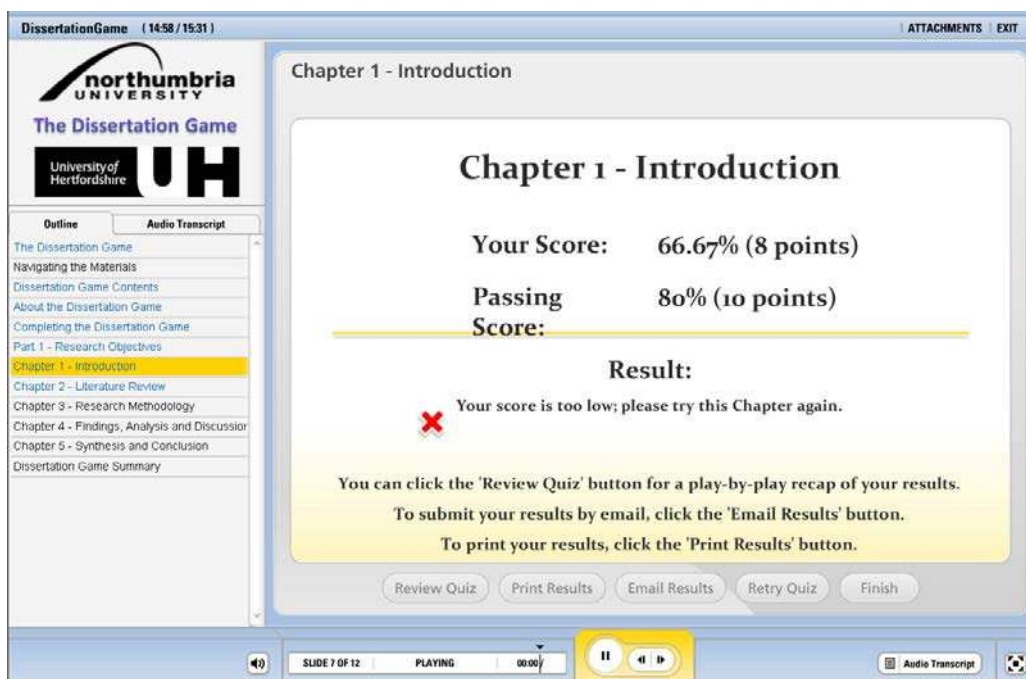


Figure 8. Feedback to correct response



Re-enforcing the interactive nature of the DGM and the benefits of using an e-learning tool, as the student works through the task a cumulative total score appears and on completion of the tasks for each chapter there is immediate summative feedback given through an overall score and an indication of how successful the student has been, shown in Figure 9.

Figure 9. Student feedback



On receiving the immediate feedback the student has a number of options. They can review the quiz, retry the quiz or print the results. Additionally the student has the option to email the results to themselves to allow reflective thinking or to their tutors allowing intervention during lectures on common issues, or their supervisors for targeted intervention. Providing this support in an e-learning format therefore allows the students to work through the material at their own pace and provides the opportunity to go back and review areas of weakness, providing a vehicle for independent learning as identified by Todd *et al.*, 2004 and Heinze and Heinze, 2009.

Student feedback and findings

The DGM has been successfully piloted within the two post 1992 business schools. Data was collected using informal focus groups and a small sample was used to gather data electronically on completion of the game as indicator for future implementation. As a method to facilitate international students' understanding it has received positive feedback, as illustrated in the following quotes from staff and students:

Students:

'I think it's an excellent tool because it's well structured, it gives you a very good overview and it's not too long to read. I felt it's very useful to have the headings and you know what has to be included in each single chapter and it also even gives you examples on how you can write that.'

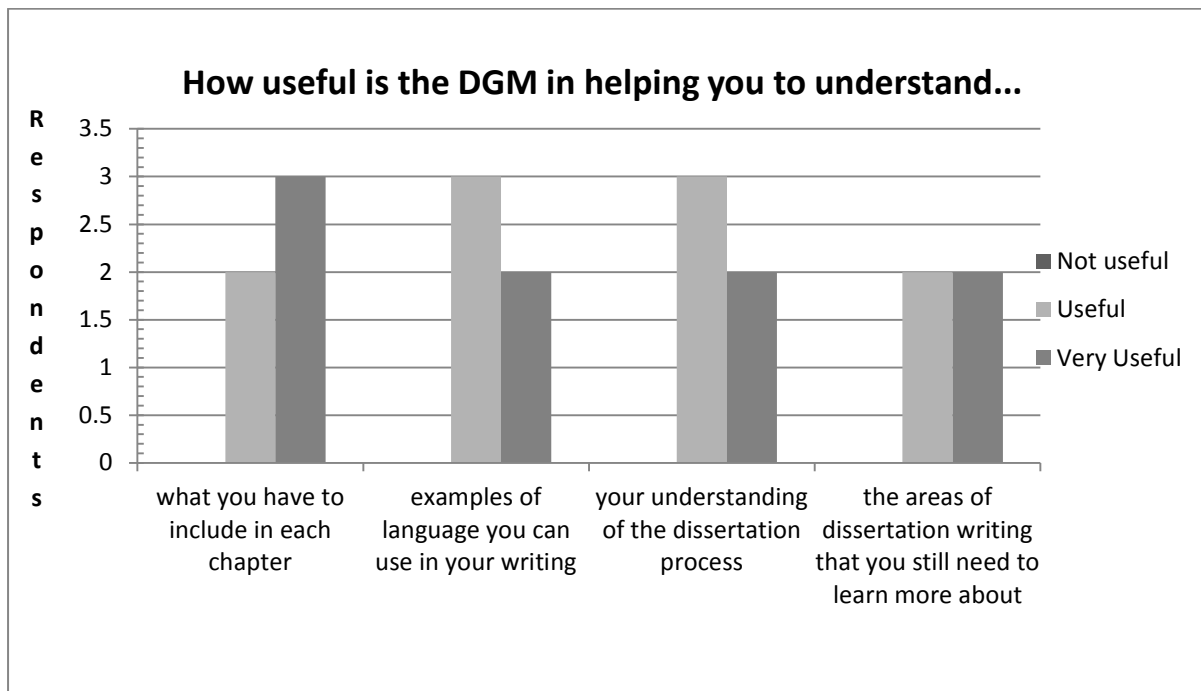
I am a disabled student using screen magnification and altering software, it is refreshing to find a university guide that works with the software as many include bold or distinctive colours which do not show up on my sort of screen.

Staff:

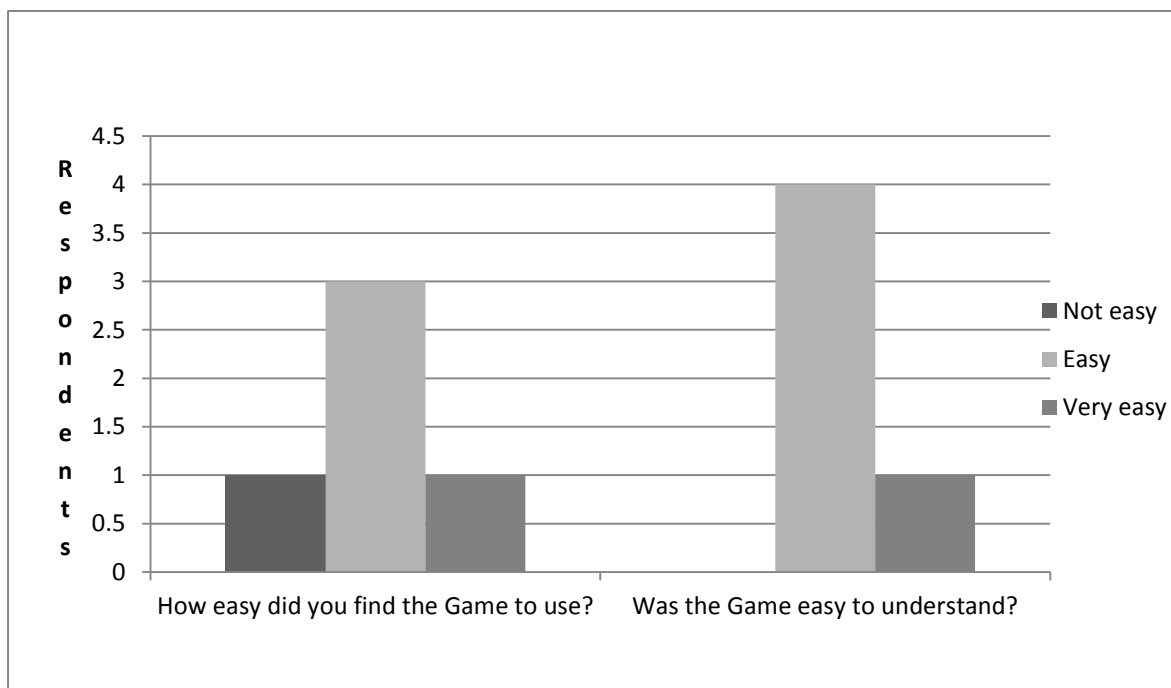
I think that this is a useful resource that has been well thought out and will be used by students. Staff

Electronic feedback was captured using Survey Monkey and the findings are shown in Graphs 5- 6.

Graph 5. Contribution of the DGM to student understanding.



Graph 6. Ease of use and understanding when using the DGM.



Discussion and conclusion

This research paper has responded to the call within the literature to support students undertaking a programme of study requiring the submission of a dissertation and has proved

extremely successful in informing current pedagogic developments to date. Linking to the theme of globalisation, the paper acknowledges the increasing number of international students now attracted to the UK education sector and in particular how this presents challenges for academic staff in designing and developing appropriate pedagogical tools to support their learning journey

Reviewing the existing work in the literature Anderson (2006); Todd (2004) highlighted that the activity of producing a dissertation presented a major challenge for students. The work of Casanave and Hibbard (1992); Ballard and Clanchy, 1997; and Sloan and Porter, (2010) goes on to focus on the challenges the dissertation process can present for international students. The focus of the research paper was therefore to provide a solution to the research question: *'Can an e-learning tool be developed to support dissertation delivery and support for international students?'*

In response to the call by Heinze and Heinze (2009) to support the student via access to electronic feedback this was addressed through the development of the *Dissertation Game Model (DGM)*, an electronic based on-line learning resource. The DGM supports international students in their understanding of the structure and conventions of dissertation writing through targeted intervention via an e-learning tool facilitating support outside one to one tutorial support providing students with interactive information, exemplars and immediate feedback

The generic content of a dissertation comprises of identification of the focus of the work, literature review, methodology, an element of data collection, analysis and conclusion; culminating in a piece of work which demonstrates prolonged in-depth engagement. From a pedagogical perspective, as identified in the literature review, how to support students through developing the generic skills to produce a dissertation is challenging from both a resource and academic context (Edwards, 2006). When mapped to the learning context of

international students these challenges become more intense but more importantly require the introduction of enablers which utilise both the students' receptiveness to and academia's ability to adopt electronic interventions.

The resulting e-learning tool, as can be evidenced from student and staff feedback and responses to conference presentations (Sloan, *et al.*, 2011) has been positive. Students indicated that the DGM was easy to use and clearly supported them in understanding what had to be included in the content of each chapter, along with an understanding of the process of carrying out a dissertation, examples of the language which should be adopted and more importantly received immediate formative feedback on areas of weakness on which they needed to focus their study. This initial work has identified limitations and further opportunities for development. In respect to limitations the data presented only one academic cycle and is focussed on international students. This has led to the implementation of on-going longitudinal data collection to inform how to further refine and develop the DGM. At the moment the DGM is designed to support international students at post graduate level, this is being reviewed to establish the flexibility of the resource to map to undergraduate level and support distance and part time students. With the latter in mind, the subject nature of the game is also under review with the option of incorporating both further examples reflecting the nature of programme of study and to incorporate degrees of difficulty.

However, the generic design ensures the DGM is transferable and sufficiently flexible to be adapted by other institutions. The format can be used with students with explanatory briefings to contextualise to local assessment contexts reflecting, variations in dissertation guidance and marking schemes and application to academic levels. The results to date indicate that as an e-learning tool the DGM has made an impact. This has been shown through its capacity to provide students with a contemporary method of delivery which facilitates independent learning, addresses the learning challenges they face in respect to

content and language; and provides both formative and summative feedback which can be utilised as a standalone or combined activity as part of the assessment and supervisory process.

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