

Appendix A Student Experience in the Study of Economics – Operational Hypotheses

Appendix A Student Experience in the Study of Economics – Operational Hypotheses

Student Characteristics

Drawing on the literature to inform the development of the operational research hypotheses in relation to **each of the learning challenges** faced by EBS students in the study of Economics, the review reveals:

Ability

Researchers have found GMAT to be a key determinant of academic success for MBA students (Kuncel, Credé et al. 2007; Oh, Schmidt et al. 2008). Also, student ability is positively associated with learning performance (Nemanich, Banks et al. 2009) so it is hypothesised that:

Hypothesis 1 (H1):

there is a positive relationship between ability and a lower perceived level of difficulty in relation to each of the learning challenges faced in the study of Economics on the Edinburgh Business Prior qualification at degree level

Age

There is some contradiction in the literature on the effect of age on academic success but research suggests that in MBA study younger students perform better than older students (Peiperly and Trevelyan, 1997) so it is hypothesised that:

Hypothesis 2 (H2):

there is a negative relationship between age and a lower perceived level of difficulty in relation to each of the learning challenges faced in the study of Economics on the Edinburgh Business School on-line distance learning programme.

Learning style

Learning style has been generally accepted as a potential source of difference in academic performance (Cassidy 2004). The effects of learning style in online graduate management programmes remain largely unexplored.

Active learners learn best by working actively with the learning material whereas reflective learners prefer to think about and reflect on the material (Graf, Viola et al. 2007). The EBS online distance learning MBA course offering does not provide opportunity for active engagement so it is hypothesised that:

Hypothesis 3 (H3):

there is a positive relationship between reflective learning style and a lower perceived level of difficulty in relation to each of the learning challenges faced in the study of Economics on the Edinburgh Business School on-line distance learning programme.

Sensing learners tend to be more practical in their learning approach and like to relate the learned material to the real world. Intuitive learners prefer to learn abstract learning material, such as theories and their underlying meanings (Graf, Viola et al. 2007). The EBS Economics course requires students to apply abstract economic concepts in problem solving and decision-making, so it is hypothesised that:

Hypothesis 4 (H4):

there is a positive relationship between an intuitive learning style a lower perceived level of difficulty in relation to each of the learning challenges faced in the study of Economics on the Edinburgh Business School on-line distance learning programme

Visual learners perceive information most effectively through pictures, diagrams, flow charts, etc, whereas verbal learners prefer written and spoken explanations (Felder and Brent 2005). The EBS Economics course has a high level of text based content combined with extensive use of pictures and diagrams. There are no spoken lectures or tutorials to accompany the course.

Hypothesis 5 (H5):

there is a negative relationship between a verbal learning style a lower perceived level of difficulty in relation to each of the learning challenges faced in the challenges study of Economics on the Edinburgh Business School on-line distance learning programme.

Sequential learners learn in small incremental steps (Felder and Brent 2005) and because the EBS Economics course is written in a logical progression of incremental steps it is hypothesised that:

Hypothesis 6 (H6):

there is a negative relationship between a global learning style and a lower perceived level of difficulty in relation to each of the learning challenges faced in the study of Economics on the Edinburgh Business School on-line distance learning programme.

Region

A relationship exists between culture, learning approach and academic grade (Strang 2009a). Furthermore, international students studying at British universities face many challenges and concerns have been raised that grades are adversely affected as a result ((Grasha and Yangarber-Hicks 1999). It is hypothesised therefore that:

Hypothesis 7 (H7):

there is a negative relationship between North American region and a lower perceived level of difficulty in relation to each of the learning challenges faced in the study of Economics on the Edinburgh Business School on-line distance learning programme.

Hypothesis 8 (H8):

there is a negative relationship between Trinidad & Tobago region and a lower perceived level of difficulty in relation to each of the learning challenges faced in the study of Economics on the Edinburgh Business School on-line distance learning programme.

Hypothesis 9 (H9):

there is a negative relationship between African region and a lower perceived level of difficulty in relation to each of the learning challenges faced in the study of Economics on the Edinburgh Business School on-line distance learning programme.

Hypothesis 10 (H10):

there is a negative relationship between Rest of the World region and a lower perceived level of difficulty in relation to each of the learning challenges faced in the study of Economics on the Edinburgh Business School on-line distance learning programme.

First language English

English as a native language has been found to be an influence on academic performance (Peiperl and Trevelyan 1997; De Vita 2001; Smith 2009), so because the course materials are written in English and students are examined in English, it is hypothesised:

Hypothesis 11 (H11):

there is a positive relationship between having English as a first language and a lower perceived level of difficulty in relation to each of the learning faced in the challenges study of Economics on the Edinburgh Business School on-line distance learning programme.

Employment Status

On the basis that those students who are employed will be better placed to see, through their work experience, the relevance and application of what they are learning (McClure, Wells & Bowerman (1986); Adam (2000), it is hypothesised that:

Hypothesis 12 (H12):

there is a positive relationship between employment status and a lower perceived level of difficulty in relation to each of the learning challenges faced in the study of Economics on the Edinburgh Business School on-line distance learning programme.

Gender

In MBA study several researchers have found no correlation between gender and performance outcomes, however some studies (Cheung 2002; Gropper 2007) suggest women perform better than men. It is hypothesised then that:

Hypothesis 13 (H13):

there is a negative relationship between male gender and a lower perceived level of difficulty in relation to each of the learning challenges faced in the study of Economics on the Edinburgh Business School on-line distance learning programme.

Whether passed Economics exam at first attempt

Hypothesis 14 (H14):

there is a positive relationship between whether passed the Economics exam at the first attempt and a lower perceived level of difficulty in relation to each of the learning challenges faced in the study of Economics on the Edinburgh Business School on-line distance learning programme.

Previous Education

There has been substantial research on the relationship between previous academic achievement and academic achievement in post-graduate management programmes; in particular the use of GPA to predict academic success (Carver and King 1994; Yang and Lu 2001; Clayton and Cate 2004; Kuncel, Credé et al. 2007; Oh, Schmidt et al. 2008; Kass, Grandzol et al. 2012)

Hypothesis 15 (H15):

there is a positive relationship between holding a prior qualification at degree level and a lower perceived level of difficulty in relation to each of the learning challenges faced in the study of Economics on the Edinburgh Business School on-line distance learning programme.

Relevant academic background

Students with a background in business management perform better in MBA than students who lack experience (Sulaiman, 2006). Also, an under-graduate pre-requisite in Economics is a significant predictor of MBA success (Christensen, 2011).

For this research it is hypothesised therefore that:

Hypothesis 16 (H16):

there is a positive relationship between previous experience in the study of Economics and a lower perceived level of difficulty in relation to each of the learning challenges faced in the study of Economics on the Edinburgh Business School on-line distance learning programme.

Online Distance Learning Context Variables

It is acknowledged that factors beyond teaching pedagogy, student intelligence and study strategy affect learning (Strang 2010) and that behavioural characteristics of students play an important role in online course effectiveness in post-graduate programmes (Arbaugh and Rau 2007).

Working on your own

Working on your own implies limited feedback and lack of interaction with instructors and fellow students, both of which have been shown to be linked to learning performance (Nemanich, Banks et al. 2009). It is hypothesised therefore that:

Hypothesis 17 (H17):

there is a positive relationship between a lower perceived level of difficulty working on your own and a lower perceived level of difficulty in relation to each of the learning challenges faced in the study of Economics on the Edinburgh Business School on-line distance learning programme.

Motivation

The level of student interest and effort is related to leaning performance (Nemanich, Banks et al. 2009) so it is hypothesised that:

Hypothesis 18 (H18):

there is a positive relationship between a lower perceived level of difficulty maintaining motivation and a lower perceived level of difficulty in relation to each of the learning challenges faced in the study of Economics on the Edinburgh Business School on-line distance learning programme.

Time management

In the online environment students have the flexibility and convenience to studying at their own pace (Marks, Sibley et al. 2005; Kock, Verville et al. 2007) so it seems reasonable to suppose that:

Hypothesis 19 (H19):

there is a positive relationship between a lower perceived level of difficulty managing time and a lower perceived level of difficulty in relation to each of the learning challenges faced in the study of Economics on the Edinburgh Business School on-line distance learning programme.

Sense of belonging to EBS

On the basis that participant interaction has been found to be important in online MBA courses (Arbaugh and Rau 2007), it seems reasonable to hypothesise that:

Hypothesis 20 (H20):

there is a positive relationship between a lower perceived level of difficulty building a sense of belonging to Edinburgh Business School and a lower perceived level of difficulty in relation to each of the learning challenges faced in the study of Economics on the Edinburgh Business School on-line distance learning programme.

Instructor-student interaction

The level of instructor-student interaction has been found to have a positive effect on learning outcomes (Marks, Sibley et al. 2005; Arbaugh and Rau 2007; Peltier, Schibrowsky et al. 2007) so it hypothesised:

Hypothesis 21 (H21):

there is a positive relationship between a lower perceived level of difficulty interacting with EBS faculty and a lower perceived level of difficulty in relation to each of the learning challenges faced in the study of Economics on the Edinburgh Business School on-line distance learning programme.

Student-student interaction

The level of student-student interaction has been found to have a positive effect on learning outcomes (Marks, Sibley et al. 2005; Arbaugh and Rau 2007; Peltier, Schibrowsky et al. 2007) so it hypothesised:

Hypothesis 22 (H22):

there is a positive relationship between a lower perceived level of difficulty networking with other students and a lower perceived level of difficulty in relation to each of the learning challenges faced in the study of Economics on the Edinburgh Business School on-line distance learning programme.

Course situation

With regard to the course situation, it is hypothesised:

Hypothesis 23 (H23):

there is a positive relationship between satisfaction with EBS Economics course materials in building up knowledge in the study of Economics and a lower perceived level of difficulty in building up knowledge in the study of Economics on the Edinburgh Business School on-line distance learning programme.

Hypothesis 24 (H24):

there is a positive relationship between satisfaction with EBS Economics course materials in understanding theory and concepts in the study of Economics and a lower perceived level of difficulty in understanding theory and concepts in the study of Economics on the Edinburgh Business School on-line distance learning programme.

Hypothesis 25 (H25):

there is a positive relationship between satisfaction with EBS Economics course materials in understanding numerical calculations in the study of Economics and a lower perceived level of difficulty in understanding numerical calculations in the study of Economics on the Edinburgh Business School on-line distance learning programme.

Hypothesis 26 (H26):

there is a positive relationship between satisfaction with EBS Economics course materials in applying theory to business problems in the study of Economics and a lower perceived level of difficulty in applying theory to business problems in the study of Economics on the Edinburgh Business School on-line distance learning programme.

Hypothesis 27 (H27):

there is a positive relationship between satisfaction with EBS Economics course materials in understanding the relevance of theory to the real world in the study of Economics and a lower perceived level of difficulty in understanding the relevance of theory to the real world in the study of Economics on the Edinburgh Business School on-line distance learning programme.

Hypothesis 28 (H28):

there is a positive relationship between satisfaction with EBS Economics course materials in linking different theories together in the study of Economics and a lower perceived level of difficulty in linking different theories together in the study of Economics on the Edinburgh Business School on-line distance learning programme.

Hypothesis 29 (H29):

there is a positive relationship between satisfaction with EBS Economics course materials in applying skills to specific business problems in the study of Economics and a lower perceived level of difficulty in applying skills to specific business problems in the study of Economics on the Edinburgh Business School on-line distance learning programme.

Hypothesis 30 (H30):

there is a positive relationship between satisfaction with EBS Economics course materials in solving complex business problems in the study of Economics and a lower perceived level of difficulty in solving complex business problems in the study of Economics on the Edinburgh Business School on-line distance learning programme.