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"HOME SWEET HOME":
PRECLUDING TWO SOURCES OF ACADEMIC STRESS IN HIGHER EDUCATION THROUGH DISTANCE /E-LEARNING

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Abstract:

This paper compares student psychological cost—especially in relation to stress and anxiety caused by academic requirements—of traditional higher education with that incurred by distance/e-learning, with the two kinds of track found to have both similarities and differences. Two potential sources of academic stress are then investigated more thoroughly. The first consists of requirements for class participation, which can cause stress and anxiety in shy or introverted students who find it difficult to speak before or within groups. The second consists of conflicts between student expectations of the educational situation and actual teacher or classmate behaviours and attitudes, a potentially stressful mismatch which occurs most often in cross-cultural education. These two sources of academic stress are found to be much more prevalent in traditional education venues than in distance/ e-learning. It is suggested that students, especially international students and those with social anxiety, take these factors into consideration when choosing whether to enter a traditional higher education or a distance/ e-learning track.

Keywords: stress, anxiety, psychological cost, traditional education, distance education, culture, shyness, class participation, social anxiety

Introduction

Among the many important decisions individuals must make in their lives, few have more potential ramifications than those that involve embarking on a course of studies at an institution of higher education. Whether to enrol in such an institution; if so, which one; and what should be the focus of one's studies are questions whose answers may profoundly affect the individual's entire life, determining career possibilities, places of work and of living, and financial rewards to be gained.
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Also very important, the answers to these questions will help determine the costs the person will be required to pay to pursue his or her educational goals. That higher education incurs a variety of significant costs to the student is clear. The most obvious of these are direct financial costs, including tuition and fees; educational tools such as books and computers; transportation; and housing, food and other essentials if the student does not live at home (Ioakimidis, 2007a).

A second and more indirect kind of cost levied by higher education consists of a substantial time and opportunity cost that typically extends for several years. The successful completion of a tertiary course of education requires a great deal of energy and time, an investment which typically requires the student to forego employment for financial gain altogether or to restrict the number of hours worked at an extracurricular job. The opportunity cost includes the salary the student would have earned if he or she had entered the job market as a full-time employee instead of enrolling in a course of studies at a college or university. Multiplied by the number of years required to complete the course of studies, this cost can be quite high. The price paid for education in terms of earnings which are foregone can be substantial even if the education is subsidised (Ioakimidis, 2007a). Indeed, when expected opportunity costs in the form of lost wages or salary are determined by the

student to be high, this can reduce his or her incentives for entering into a course of studies (Lauer, 2002).

A third category of costs is often poorly considered or even goes unrecognized by the prospective student. This category consists of the psychological costs incurred during the years of tertiary education. Psychological costs comprise the anxiety, psychological stress and even fear which many students experience as a result of various factors associated with entering and completing a course of studies at a college or university.

This paper focuses on the issue of the psychological costs paid by students enrolled in higher education, and especially those psychological costs directly resulting from academic stress. The author compares the two major kinds of tertiary education track—traditional education and distance/ e-learning—in regard to these costs. A traditional face-to-face education track class is held in physical classrooms with the instructor and other students physically present. A distance/ e-learning track class is defined as a class at a college or university campus where the student completes most of his or her academic work at some distance—typically at home—by way of communication capabilities enabled by a computer connected to the Internet.

Given the substantial differences between these two types of educational venues, it is reasonable to suspect that student psychological costs related to academic stress for the two may differ. Accordingly, the author will first identify some of the main factors that affect psychological costs in a traditional higher education classroom and compare these to factors that affect the psychological costs of distance/ e-learning. The analysis will then focus on two academic sources of stress that often increase the psychological costs paid by many traditional higher education students, the first of which consists of requirements for class participation. Requiring shy or introverted students to verbally contribute to discussions in classes, seminars, tutorials, or other face-to-face venues may result in substantial social anxiety. The second factor consists of situations in which student expectations about how the academic situation what academic situation? It isn't clear. Should precede conflict with instructor teaching style as exhibited by teacher behavior and/or attitude, or with the verbal or other behavior of fellow students. The author argues that both of these factors can increase the psychological cost for higher education paid by some traditional students, and that socially anxious students and international students (those who are studying outside their home country and culture) are especially susceptible to having to pay one or the other, and in some cases both, of these psychological costs. The author further argues that stress and anxiety related to these factors are minimized in the case of e-learning, and that it is prudent for socially anxious and potential international students to consider these psychological cost issues in deciding whether to pursue their education on a traditional or a distance e-education track.

Some Factors Determining Psychological Cost in Higher Education
Student psychological cost is here understood to comprise the psychological distress, including anxiety, stress or fear experienced by a student in relation to his or her education. This cost can be considerable for many students who pursue a higher education degree and can result in substantial negative impacts. For instance, psychological stress has been shown to be negatively correlated with academic performance (Akgun & Ciarrochi, 2003; Sloboda, 1990; Struthers, Perry & Menec, 2000), affecting students' ability to solve problems, recall material and perform in class (e.g., Betz, 1978; Svinicki, 1999). Anxiety can also negatively affect students' mental and physical health (Beatty & Beatty, 2001; Bovier, Chamot & Perneger, 2004; Powell, 2004). For instance, physiologically, it has been found to have an effect on DNA repair (Cohen et al., 2000) and on blood pressure (Hughes, 2005).

In a traditional face-to-face higher educational setting, the stress and anxiety that students experience can stem from various factors. In some cases, these will include issues that are, strictly

speaking, separate from the academic environment. For example, a student may have concerns about finances, health, or family. Indeed, in traditional education, non-academic concerns such as financial problems and limited time to socialize with friends or family has been found to result in psychological stress (Michie, Glachan & Bray, 2001).

The sources of stress and anxiety of interest in this paper are those more directly related to the academic situation with which the student finds himself or herself having to cope. One potential academic stressor that students in a traditional education environment must deal with is the necessity for newly entering students to quickly familiarize them with a large and complex institution, as they learn to navigate an unfamiliar physical, social and cultural environment. Whenever a student enters a higher level of education, there is a period of adjustment, which is no less true in the case of tertiary education than for other levels (Barber and Olsen, 2004; Kerr, Johnson, Gans and Krumrine, 2004; Zeidner, 1992). When traditional-track students enter a college or university, they must come to understand and successfully deal with the rules and norms of an academic subculture and a new social milieu; find a way to thrive within a highly competitive atmosphere; familiarize themselves with new instructional systems; and learn how to effectively employ the institution's resources, such as libraries, computer systems, and labs (Zeidner, 1992).

Once the student has learned the rudiments of how to negotiate the new physical, social and cultural landscape, potential stressors do not subside. Perhaps the most obvious ongoing factor affecting student stress and anxiety is the amount of required academic work (Sloboda, 1990). Students are greeted with academic challenges immediately and continue to face those challenges throughout their education. They must typically complete numerous reading and writing assignments, as well as take examinations, often while dealing with time constraints and deadlines. This requires the student to develop efficient study habits under sometimes difficult conditions (Zeidner, 1992).

That stress and anxiety often do not decrease even after the student has had adequate time to adjust to his or her new environment is indicated by the results of several investigations. It was found that the emotional health of 17,331 first-year college students in 50 US institutions of higher education declined from the first to the second semester of classes (Sax, Bryant and Gilmartin, 2004). These findings suggest that instead of decreasing after traditional students have become familiar with college life, the psychological cost they pay actually increases. Moreover, studies have indicated that academic stress is cyclical. In particular, several studies have shown that there are predictable times each semester during which students experience greater academic stress due to exams, grade competition and the need to master content (Misra and McKean, 2000). Thus, in traditional settings, stress and anxiety associated with academic achievement tends to have cyclical highs and lows throughout the student's higher education.

Some of the kinds of the academic demands that may place psychological stress on traditional face-to-face education students also apply to those who choose a distance/ e-learning track. Pre-eminent among these is academic pressure, since e-education students, too, can usually expect to be levied a number of academic requirements that demand considerable time and energy, as well as the ability to focus that energy effectively on specific tasks. Like the traditional student, the e-student is normally expected to read a substantial amount of material, memorise information, understand concepts, seek clarification when necessary, write essays and other papers and prepare for examinations.

There is evidence, however, that unlike the case for traditional education, perceived academic pressure tends to decrease over time for distance e-learners (Ioakimidis, 2007b). Before further discussing this finding below, we should first note that several factors which may increase student psychological cost are peculiar to or more prevalent with distance/ e-learning than with traditional tracks. One of these is the difficulty involved in collaborative learning. It is usually relatively easy for traditional students attending the same class to meet physically with their peers outside of class

to discuss assignments, work on mutual projects, prepare for examinations and conduct other academic business related to their coursework. Distance learners typically do not have this advantage. Separated geographically, their "meetings" must take place via email, chat rooms, telephone or other distance-reducing technology (Lawless and Allan, 2004).

Other academic stressors related to the distance involved in e-learning include (Bauer, 2001; Hara and Kling, 2000):

- Inability to receive prompt answers from the instructor but instead having to wait for email replies;
- Time required to compose and read e-mails, compared to the time required for conversations with teachers and peers in traditional education;
- Ambiguity of written instructions that cannot be verbally clarified by an instructor;
- Potential for misunderstandings in written communication due to the lack of social cues.

A factor which is related to both traditional and e-learning, but is generally more pronounced in the latter, is the difficulty of mastering usage of the computer, computer programs, the Internet and Internet-based communication. In all forms of higher education, the use of computers and the Internet as educational tools has become ubiquitous; however, in distance/ e-learning these tools are absolutely critical. In a sense, the computer takes the place of a live instructor, becoming the device through which instruction is provided, assignments are given and tasks are completed. In most cases, communications between student and the professor(s) who is in charge of the class is done through the computer. In brief, whereas the computer may be an important tool for the traditional student, for the distance/ e-learning student, it is the very lifeline of his or her education.

Because of the critical role the computer plays in e-learning, when the student has difficulty understanding how to use the computer, his or her educational progress is placed in jeopardy, which can lead to considerable psychological stress and anxiety. Indeed, a number of stressors related to technology have been found among distance learning students. These include unfamiliarity with the technology which is required; technological problems such as computer malfunctions and inaccessible web sites, and the technological knowledge required for the course not being made clear in the course prerequisites (Bauer, 2001; Hara and Kling, 2000). Among distance learners taking courses from an Australian university, students expressed frustration about their distance learning experience, including frustration about unreliable connections to the Internet and Internet links that did not work (O'Regan, 2003). Indeed, those familiar with the vagaries of computers and online connections may understand how even when an e-learning student becomes proficient with the technology, computer malfunctions or crucial websites being temporarily inaccessible can lead to substantial frustration among students for whom such problems threaten satisfactory completion of assignments, tests or communication with the instructor or cohorts.

Despite all of this, it seems likely that unfamiliarity with and problems dealing with the required technology are becoming less significant psychological cost factors for distance learners as computers become a more engrained part of everyday life. Furthermore, there is evidence that anxiety over use of the technology lessens as users gain experience and become familiar with the technology (Yaghi and Abu-Saba, 1998, as reported in Smith and Caputi, 2001). For example, among tertiary students examined in Singapore, those who owned personal computers had the lowest computer anxiety and the highest positive attitudes toward computers (Teo, 2006). Among higher education students in Australia, China, Ghana, Puerto Rico and the US, those who possessed personal computers had more positive attitudes toward computers than those who did not, suggesting that computer access and usage positively affects college students' attitudes toward computers across geographic regions (Carey, Chisholm and Irwin, 2002).

That for distance/ e-learning students there is a gradual lessening of stress and anxiety that may arise due to unfamiliarity with the required technology was substantiated by a study of Greek university students in which psychological cost for e-learning students decreased over time and experience (Ioakimidis, 2007b). The same study found that for students on a traditional track, psychological cost did not decrease over time, which appears to agree with the findings of Misra and McKean (2000) reported previously. In explaining the results of the study, Ioakimidis (2007b) suggested that in each new semester of traditional education, students must adjust to new courses, professors, and classmates, and sometimes to new educational procedures. Furthermore, coursework and examinations may become more difficult as the student's education proceeds, with expectations becoming higher each semester. All of this may result in students being continually required to deal with circumstances dissimilar to those experienced before, requiring an adjustment period each semester. This may serve to keep student stress and anxiety about academic requirements at approximately the same level throughout the years of traditional higher education. The findings also suggest that although new courses and professors are also a fact of life for distance/ e-learning students, perceived continuity may be greater for these students. This may partly be a function of the relatively constant environment—a computer workspace—within which the e-learner performs so many of the tasks required for his or her education.

Two Academic Stress Factors Characteristic of Traditional Education

As we have seen above, some features of academic stress are similar between traditional and distance/ e-learning, while others pertain to one kind of higher education track to a greater degree than the other. Here, we introduce two important sources of stress and anxiety which apply more to traditional than to e-learning tracks.

Social Anxiety Due to the Need for Class Participation

Classroom participation, which is often expected in many traditional face-to-face classes, can result in considerable stress and anxiety for some students, especially those who have doubts about their language skills or simply find it difficult to talk before others. The ease with which students participate in class depends on the student's personality, with students who are shy or introverted being put at a disadvantage (Jacobs and Chase, 1992). The characteristic of shyness appears to be gaining in prevalence among young people as they spend so much of their time on video gaming and other solitary activities (Payne, 2004). This suggests that the number of students who experience shyness during classroom situations may be increasing.

Shy individuals can be viewed as falling into one or both of two primary categories. The first comprises those with social interaction anxiety, which is fear or anxiety about interacting with others. The second comprises individuals with social observation anxiety, which is fear or anxiety related to being observed by other people (Kashdan, 2002). Either or both of these anxieties may be triggered when a socially anxious student is asked to speak before a class, or to otherwise verbally interact with other students or a professor. Social interaction anxiety has been found to be negatively correlated with several aspects of psychological functioning (Kashdan, 2002). In some cases, social anxiety can be so extreme as to constitute social anxiety disorder, which is characterized by the individual being excessively fearful of doing something embarrassing or of showing symptoms of anxiety (American Psychiatric Association, 1994). The prevalence of such social phobias may be as high as 13% in the US (Payne, 2004). This suggests that numerous students may pay a heavy psychological cost in terms of stress and anxiety when confronted with the need to contribute to classroom discussions.

International students, especially those who perceive themselves as not orally fluent in the host language, may be especially susceptible to stress and anxiety resulting from the need to contribute to classroom discussions, as well as from other stressors related to their unaccustomed environment. International post-graduate students enrolled in a university in New Zealand reported experiencing

anxiety about speaking in class or tutorials (Lewthwaite, 1997). The students' perceptions of their English skills were found to be related to their feelings of anxiety. Similarly, graduate-level international students in US colleges and universities were found to experience stress related to their perceived proficiency in English (Wan, Chapman and Biggs, 1992). The researchers also found that academic stress among these international students often occurred due to a heavy and fast-paced academic workload and the relative lack of social support mechanisms. The students' perceptions of their English (as well as their academic and problem solving) skills were predictors of their self-perceived ability to deal with academic requirements.

Stress caused by Disappointed Cultural Expectations
A second source of student stress and anxiety within traditional higher education occurs when the student's expectations of instructional style, as displayed by teacher behaviour and attitude, are at variance with the teacher's actual manner of conducting his or her classes, or is in conflict with the verbal or other behaviour of classmates. Such anxieties may occur when students first enter a college or university and find that instructors or fellow classmates display behaviour or attitudes at variance with what they have come to know from their secondary teachers and classmates. However, in such cases the new student typically learns quickly to adjust to the novel teaching and learning environment.

A more serious perceived mismatch of student and teacher or classmates style may occur in cross-cultural education situations in which a student enrols at an institution located in a culture different from his or her own. Such mismatches are possible because higher education students' expectations of the educational situation often vary with national culture. Hofstede (1986) defined four dimensions along which national cultures can differ: individualism opposed to collectivism; the degree to which a society's less powerful people accept their position; the degree to which members of a culture tend to avoid uncertainty; and masculinity versus femininity. These varying aspects of national culture help to determine the learning styles and expectations of students who develop within those cultures (Hayes and Allison, 1988; Hofstede, 1997; Wierstra, Kanselaar, van der Linden, Lodewijks, and Vermunt, 2003; Yamazaki, 2005).

Various studies have investigated how student learning styles differ from culture to culture. For instance, on the dimension of individualism versus collectivism, accounting students from the highly collectivist cultures of Hong Kong and Taiwan were found to be more abstract and reflective, and less concrete and active, than students from the more individualistic culture of Australia (Auyeung and Sands, 1996). Also, Asian international students differed from Australian students in several aspects of learning style, including motivation, strategies, and higher preference for group learning (Ramburuth and McCormick, 2001).

Since culture can affect teaching as well as learning styles, problems may arise when the instructor's teaching style does not match the student's expectations of what should be teacher behaviour or attitude in conducting classes and other course work. Discrepancies may occur when a student and teacher are from two cultures which have different practices and attitudes in regard to (1) the social positions of teachers and students, (2) what is relevant in curricula, (3) cognitive profiles, or (4) patterns of teacher-student and student-student relations (Hofstede, 1986).

Such problems can be seen in English as a second language (ESL) and English as a foreign language (EFL) students who matured in cultures in which ambiguity was not encouraged and with a closure-oriented style of learning. Students from such cultures may disapprove of an open style of education in which the teacher presents a relatively non-authoritarian demeanour and allows for varying answers to some questions. For example, Arabic-speaking students tended to find fault with an instructor who had an open style of teaching and accepted more than one correct answer to a question (Oxford, Hollaway, and Horton-Murillo, 1992). Moreover, higher education students in a

multicultural ESL setting were found to experience style conflicts in 326 of 396 possible comparisons of features of teaching and learning style (Wallace and Oxford, 1992).

Such results strongly suggest that to accomplish their goals in cross-cultural education, it is important for instructors to understand their own preferred styles and those of their students, including their international students. Teachers must consider developing a spectrum of teaching methods that meet their student's learning style, expectations, and educational needs. Language teachers should assess their own learning styles and help their students to recognise their learning styles (Oxford and Anderson, 1995). Cross-cultural learners, too, may need to re-evaluate their beliefs about the proper roles of learners and teachers (Ho and Crookall, 1995).

A study of Greek university students in a traditional setting demonstrated how conflicting learning and teaching methods can affect traditional tertiary students' perceptions of their instructors (Ioakimidis and Myloni, 2010). In this study, the students were not international students but rather were exposed to a teaching method that was not typical for Greek instructors. Hofstede (1986) ranked Greece as being a masculine culture, relatively low in individualism, relatively high in power distance, and quite strong in uncertainty avoidance. This suggests that Greek tertiary students are most comfortable in structured learning situations with clear objectives, and that they expect their professors to be authoritative experts (Hofstede, 1986). In the Greek study, it was found that university students confronted with professors employing a relaxed, open and friendly teaching method perceived them as lacking classroom control. Moreover, the instructors were rated low in respect. When the professors changed their teaching style the next semester to more authoritarian, "distant" behaviour, both student ratings and respect rose.

In the Greek study (Ioakimidis and Myloni, 2010), no measures of psychological student stress or anxiety were made; thus, it is not clear whether psychological discomfort among students resulted from their perceptions of their instructors. Possibly, because the investigation concerned attitudes of domestic students toward instructors employing somewhat experimental methods for that culture, there may have been relatively little student psychological stress involved. However, in the case of international students attending classes in a new culture, it is likely that student psychological costs are often levied as a result of a mismatch between student expectations and teaching realities. For example, feelings of anxiety among international post-graduate students in New Zealand were found to be related to lack of familiarity with cultural expectations in their relationships to their instructors (Lewthwaite, 1997). In addition, adjustment problems for international students in the US were found to be related to the unfamiliar educational system, among other issues (Zhai, 2002).

Psychological stress for international students may also result from educational expectations of their new classmates, as was found in a case study of a Chinese student enrolled in an American university (Hsieh, 2007). The researcher held that in the US, traditional higher educational settings can sometimes disempower international students due to unbalanced power relationships between the international student on the one hand, and American instructors and classmates on the other.

In contrast to the situation for traditional higher education, neither of the potential stressors discussed above—social anxiety related to classroom participation, or mismatched teaching and learning styles—is normally a significant issue for tertiary students enrolled in a distance/ e-learning track. In regard to social anxiety caused by having to speak before others, such situations do not occur in typical distance/ e-learning venues. Though e-learners often do engage in a kind of class participation, this is generally restricted to email communications among class members or to virtual gatherings in "chat" rooms. Thus, a student who is unsure of his or her skill in speaking the language or who finds it difficult to articulate thoughts in the physical presence of others is not subjected to situations calling upon the exercise of such skills. Certainly, perceived proficiency in the written language might inhibit an e-student's communications somewhat, inasmuch as the

student may perceive himself or herself as being in a kind of social situation; however, it seems doubtful that most students who are shy, introverted, or concerned about their language proficiency would be subject to the degree of social anxiety in e-learning venues that they would experience in having to speak in the presence of the eyes and ears of their classmates.

As for stress and anxiety brought on by cross-cultural mismatches between the student, on the one hand, and instructors and/or classmates on the other, this potential psychological cost is also to be reduced for e-learning students. Certainly, a professor's teaching method, whether open and more relaxed, or closed and more authoritarian, may be reflected in how he or she designs an e-course in regard to lessons, assignments, exams and communications, as well as by the demands which are made on students. However, important aspects of teaching method such as the instructor's classroom behaviour and attitude, and his or her manner of verbally addressing and conversing with students both in and out of class are unable to be expressed in the e-learning environment. Similarly, a possible mismatch between the student and his or her classmates in regard to verbal communication styles and expected behaviour within physical groups is a mostly irrelevant issue in the case of e-learning. Thus, e-learning tracks appear to present fewer potential stressors for those tertiary students who experience social anxiety in speaking before others, as well as for those who would experience stress due to either unaccustomed teaching behaviours or attitudes expressed by instructors or a perceived mismatch with classmates' verbal or other behaviour in the academic setting.

These considerations clearly pertain to actual and potential international students, many of whom may be, as discussed previously, uncomfortable in speaking before others in a classroom context due to shyness, perceived inadequacy in the host language or both. Furthermore, potential mismatches between student learning and instructor teaching style, as well in social expectations between student and classmates, are more likely to occur with international students than with any other group. Thus in higher education, some international students may pay a smaller psychological cost related to academic stress—at least in relation to these two kinds of stressors—than they would if they took a traditional track.

Conclusion

In comparing factors that affect academic stress in traditional track versus distance/ e-learning track higher education students, the author has identified two sources of such stress that apply much more to the former than to the latter. However, the fact that anxiety caused by class participation requirements and/or mismatched culturally derived expectations is reduced in e-learning tracks does not show by itself that the psychological cost a student pays for distance/ e-learning is less than for traditional education. For one thing, as discussed previously, distance/ e-learning students sometimes face their own unique psychological stressors related to academic requirements. Second, for some students non-academic issues bearing on psychological cost may be relevant to choosing one kind of track or another. Finally, for many students social anxiety and anxiety due to mismatched expectations about teacher or classmate behaviours and attitudes are minimal.

Yet, for students who experience social anxiety, as well as for those contemplating a traditional track in another country but who have concerns about their host language fluency or their expectations about the host country's educational environment, it may be prudent to consider whether academic stress and anxiety might be lowered by choosing a distance/ e-learning track over a traditional track. A few years ago, this might have been a moot suggestion. However, as more and more institutions of higher education in different countries develop programs for degree-seeking distance/ e-learning students, the choice to stay home and avoid some potential sources of academic-based stress and anxiety becomes an increasingly realistic option for many students.

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