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**Business Students' Perception of
their Critical Thinking Abilities in
an Offshore Campus**

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Business Students' Perception of their Critical Thinking Abilities in an Offshore Campus

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Abstract

Students graduating from Business schools are expected to master critical thinking skills to advance their careers and increase their chances of attaining employment opportunities. This study examined the perceptions of undergraduate students studying Business at Middlesex University Dubai of the extent to which their critical thinking skills were developed. The study focused on specific elements of critical thinking including their ability to think and question effectively and weighing up different point of views to reach a conclusion. University students are expected to acquire those skills within the academic context despite several hindering factors including culture influence and former education. The study explored those factors particularly in relation to students who completed their primary and/or secondary education outside the United Arab of Emirates (U.A.E.). Questionnaires and interviews were used to collect primary data about students' perception of and their level of competency in critical thinking skills. Action research was used as the research paradigm to investigate that issue. The initial results of the study showed that business students are not confident of their ability to think critically. Additionally, the findings revealed that they are uncomfortable with questioning the work of experts. To address that issue, an intervention was implemented to establish their understanding of critical thinking concept and in the process enhance their ability to argue a point of view effectively. The intervention was evaluated at the end of the study. Results are discussed and future directions are provided.

Keywords: Critical Thinking – Undergraduates Business Students – Action Research

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Introduction

Critical thinking is important because numerous research studies suggest that not all Business students are capable of thinking critically nor that it is adequately taught in Business Schools (Braun, 2004; McEwen, 1994; Pithers & Soden, 2000). Recruiters and employers maintain that employees and managers' poor critical thinking skills have serious ramifications in terms of their ability to make high quality decisions (Taylor, 2010; Pascarella, 1997). In 2009, a survey of 600 employers, found that, even during this economic crisis and high unemployment, 61% of respondents claimed it was challenging to find qualified employees (Taylor, 2010). Additionally, the results of the survey showed that communication, analytic skills and work ethics, were the skills that organizations thought were most lacking.

Meanwhile, universities and educators are struggling with developing those skills in the classroom. A study conducted in the United States from 2005 to 2009, tracked data collected from students' surveys of 2,322 college undergraduates' students across 24 colleges and universities. The study concluded that many of the students, who graduated had poor ability to tell the difference between fact and opinion, construct an effective argument in writing or objectively review conflicting reports of a situation or event (Arum & Roksa, 2011; Rimer, 2011). This challenge is not exclusive to the United States; large companies around the world are highlighting the same issue. Entry-level employees graduated from schools and colleges come into companies without knowing how to think and question since they lack the reasoning and critical thinking abilities needed to process and refine information (Rfaner, 2006).

National governments worldwide including the United Arab Emirates, consider developing business students' critical thinking (CT) skills a clear and significant objective. Further research on ways to achieve that goal is required (Braun, 2004; Carr, 1988; Ennis, 1993; Marzano, 1993; Pithers & Soden, 2000). In the U.A.E, there have been only a few studies that examined the business students' perception of their CT skills, i.e. their ability to think and question. Among the studies conducted previously in the U.A.E., one study attempted to determine if the original test used in the Cornell Critical Thinking Readiness of students grades 4-12 (phase 1 the deductive reasoning abilities of adolescents) would be a suitable test for Arabic students (McLellan, 2009). Further studies were conducted to examine critical thinking abilities of nursing students from two different curricular approaches that is case-based learning and didactic teaching (Kaddoura, 2011).

Many believe in the existence of a profound and significant connection between CT and Higher education and they support developing students' cognitive abilities as opposed to simple knowledge acquisition (Garrison, 1991). On the other hand, those who enthusiastically suggest that the business curriculum requires a makeover for the purpose of integrating CT do not seem to agree on many central issues. Those key issues present a number of unanswered questions e.g. what is the nature and different forms of CT, how

does the thinking process develop, how does CT relate to the individual's learning process and how should it be assessed. Literature offers possible answers to those questions but each source tells a different story (Ennis, 1993; Halpern, 1999; Pithers & Soden, 2000; Garrison, 1991).

The cause of a great deal of confusion might be the intricate nature of the critical thinking concept. Many claim that there's no universal skill labeled as critical thinking because thinking is an internal private process, individuals are often not aware of how they think, only of the outcome that is produced (McPeck, 1981). Thus, identifying the influence of CT on determining learning outcomes and assessment criteria for different disciplines is a complicated issue (Moon, 2008). For the purpose of this study, Cottrell (2005) definition of Critical Thinking was adopted as a cognitive activity, 'associated with using the mind. Learning to think in critically, analytical and evaluative ways means using mental processes such as attention, categorization, selection, and judgment'.

The purpose of this study was to examine the perceptions of Undergraduate Business Students (UBS) of the extent to which their critical thinking skills were developed. Questionnaires were administered to assess students' critical thinking skills. To validate the study findings, semi-structured interviews were conducted with a number of students and faculty members. Based on the data analysis, an intervention was planned in the form of class activities to establish the students' understanding of the Critical Thinking concept. This study was conducted in Dubai, a cosmopolitan city where classroom diversity is exceptionally high. Undergraduate business students enrolled in Dubai campus are mainly from India and Pakistan.

Method

Participants

In total, 167 students (42.7% women: age range 18-25) participated in the study by responding to questionnaires and volunteering in group interviews. The majority of participants were Asians, predominantly from India and Pakistan, however a small number of participants were from other countries mainly Nigeria and Kenya.

The participants in this study were UBS enrolled in a level one subject called Organizational Behavior and Analysis at Middlesex University Dubai during the academic year 2009-2010. Those were chosen on the assumption that they had not been fully exposed to the concept of critical thinking as the time they spent studying at the university is considered insufficient to acquire such learning (McEwen, 1994; Rfaner, 2006).

All participants met the minimum university admission requirements i.e. completed British national curriculum (GCE) Advanced levels (i.e. 2 A levels) or its equivalent. Language was not considered a barrier in this study, as all university programmes are taught in English and students with previous

education outside of English speaking countries demonstrated English language proficiency in order to be enrolled.

Materials

The “Critical Thinking Assessment” questionnaire (see Cottrell, 2005, p.13) was used to assess students’ knowledge of and level of competence in critical thinking. It required them to identify the different aspects of critical thinking skills outlined in 25 statements, rating their responses on 0-4 Likert scale ranging from “Strongly agree” to “Strongly disagree”. The questionnaire sum scores provided each participant with a total score that indicated to what extent their critical thinking skills were developed. Total scores >75 have been reported to indicate that the participant was very confident in their critical thinking ability (Cottrell, 2005) and a total score <45 have been reported that they needed to develop those abilities further.

THE “CRITICAL THINKING PRIORITIES” QUESTIONNAIRE (SEE Cottrell, 2005, pp. 14-15) required each participant to identify among 32 critical thinking aspects, the most important ones that they considered as a priority and hence required immediate development. The questionnaire achieved that objective through the following three steps. The first step required the participant to rate each critical thinking aspect by assigning “5” for “very important” and “0” for “not important at all”. Step two, each participant was required to rate the same aspect from “5” for “very essential” to “0” for “not essential at all” to determine how soon they needed to develop that critical thinking aspect. The third step, participants added the previous two scores given to each aspect. Finally, participants identified the 3 aspects to which they gave the highest 3 scores. Total scores ranged from “0” to “10” points. It has been reported that the higher the score, the more urgent and essential participants needed to develop that particular aspect of their critical thinking skill (Cottrell, 2005).

Intervention

The intervention implemented in this study aimed at explicitly introducing and promoting the critical thinking concept in the classroom. The intervention was planned based on the data analysis of the “Critical Thinking Assessment” and “Critical Thinking Priorities” questionnaires, in addition to the faculty members’ interviews. I have identified three academic sources to design the intervention for two reasons. First, due to their widespread success in teaching critical thinking in various educational settings and second, participants had access to those sources at the university’s library. The following activities were spread over six consecutive weeks (see Cottrell, 2005, p. 2, 39, 52-53, 150, 208-211, Cottrell, 2008, pp. 286-288, Den Brink-Budgen, 2000, pp. 9-15).

Initially, participants were asked during the first seminar to define critical thinking and identify the benefits and barriers to thinking critically. Based on previously established interventions (Cottrell, 2005), additional activities were implemented, assisting the participants in recognizing the features of an argument, identify a logical order of an argument, differentiate between an

argument and a disagreement and finally, to weigh up evidence for and against a point of view. The activities selected were directly relevant to the subject's key learning objective which is to construct a scientific argument for a question posed and to compare, contrast and evaluate data and information.

The subject was delivered in the form of a lecture followed by a seminar on weekly basis. The seminar comprised an activity or a task to consolidate, monitor and test students' understanding of the material introduced during each lecture. In total, the seminar duration was 60 minutes and about 30 minutes were dedicated to each intervention-related activity. Throughout the intervention's duration which lasted six weeks, I asked the participants to undertake an additional activity related to critical thinking in small groups during the seminar time. Answers of participants were recorded and in-class feedback was given.

Procedure

Two questionnaires were administered before the intervention and one after the intervention. For the "Critical Thinking Assessment" Questionnaire, of 167 handed out questionnaires, 153 were available for analysis, indicating a response rate of 91.6%.

For the "Critical Thinking Priorities" Questionnaire, of 159 handed out questionnaires, 121 were available for analysis, indicating a response rate of 76.1%. Another data collection method employed in this study was semi-structured group interviews for participants as well as semi-structured individual interviews with faculty members. To validate the initial findings prior to the intervention, a total of three faculty members who taught the same subject to a different cohort participated in one-on-one interviews. After the intervention, 11 participants volunteered to take part in group interviews (8 female and 3 male: age range 18-25). Additionally, to evaluate the intervention, participants were asked to answer a single item questionnaire, out of 63 handed out questionnaires, 21 were available for analysis, indicating a response rate of 33.3%. All questionnaires were distributed during class time.

To substantiate the initial findings, I conducted three semi-structured one-on-one interviews with faculty members before the intervention. For faculty interviews, I approached those involved in teaching the same subject to different cohorts from 2008 to 2010 as they possessed the necessary experience in interacting with students in the classroom as well as assessing their written course work which involved critical thinking elements such as constructing an argument. That enabled them to provide valuable insights into students' ability to think critically and write analytically. During the one-on-one interviews conducted with three faculty members, I focused on a set of questions which included the following:

First, I explored and to what extent faculty members believed students are familiar with critical thinking concept. Additionally, to what extent faculty members believed students are comfortable in participating in classroom discussions that required them to think and question. Based on providing students with feedback on their written course work, how developed faculty

members believed the students' skills are in relation to constructing an argument. The approach each faculty member adopted previously to develop students' critical thinking skills were also explored. Finally, if faculty members believed that students' education prior to university empowered them to think critically.

To evaluate the intervention, I conducted two semi-structured group interviews with a total of 11 participants after the intervention. For participants' group interviews, I focused on a set of questions which included to the following:

How comfortable students were in participating in class discussions that required them to think and question. To what extent students were familiar with critical thinking concept and what did they thought it involved. Additionally, I explored students' perception of their ability to weigh up different points of views fairly. If they found it challenging to orally construct an argument effectively. Finally, if they believed that their previous education prior to university prepared them to think critically.

Additionally, the "Intervention Assessment" questionnaire was administered. The purpose of the questionnaire was for the participants to assess the intervention. It consisted of a single item measure using a 0-5 Likert scale ranging from "Strongly agree" to "Strongly disagree" to explore if the activities introduced during the six weeks intervention helped in developing their knowledge of the critical thinking concept.

Written informed consent was obtained from all participants and all data were anonymised. Data were analyzed using MS excel. Audiotape of the interviews were transcribed by the researcher and analyzed by thematic analysis.

Analysis

The author of this study taught undergraduate business students a level one subject called "Organizational Behavior and Analysis". Action Research is the research paradigm chosen to investigate the issue identified above. That particular research paradigm allows researchers to be significantly involved in the research context and remain at the centre of their research. Action research's features encourage the researcher to take specific, context-related decisions such as deciding on the research focus based on what they consider relevant and essential to their situation, propose an intervention based on the research's initial findings and evaluate the intervention's outcomes (Herr & Anderson, 2005, McNiff, Whitehead & Lomax, 2003). That indicates a great responsibility and accountability for the consequences on the researcher's part. In the field of education, there's a noticeable increase in employing action research due to its prevalent success in that field. Researchers seem to find it useful as an individual pathway to professional development and as a collective pathway to professional and institutional change (Herr & Anderson, 2005, p.17). Action research was considered the most suitable method within the present research framework for the purpose and scope of this study, not only because I am an insider but also because desired change is an important educational outcome this study aimed to achieve.

Results

Key themes emerged from the data analysis which are classified here into prior and post to the intervention.

Prior to the intervention

Confidence in Critical Thinking

In the “Critical Thinking Assessment” Questionnaire, 74.5% OF THE PARTICIPANTS SCORED BETWEEN 75 AND 45 POINTS AND 1.3% SCORED LESS THAN 45 POINTS, according to (Cottrell, 2005) three quarters of the participants in this study were not confident in their critical thinking ability. HOWEVER, 24.2% OF THE PARTICIPANTS SCORED ABOVE 75 POINTS WHICH ILLUSTRATED THAT THEY WERE CONFIDENT IN THEIR ABILITY TO THINK CRITICALLY.

In the “Critical Thinking Priorities” Questionnaire, THE HIGHEST OVERALL SCORE OF THE PARTICIPANTS’ RESPONSES REVEALED THE FOLLOWING FIVE KEY ASPECTS OF CRITICAL THINKING THEY WANTED TO KNOW MORE ABOUT AND THEY CONSIDERED AS A PRIORITY: To understand the benefits of critical thinking, to know how to structure an argument, to apply critical thinking when making notes, to use language more effectively to structure an argument and finally, to present their own arguments clearly in writing.

All faculty members participated in interviews perceived that UBS are not confident about their ability to think critically, to construct an argument effectively and to weigh up evidence to support their point of view. Additionally, they believed that students’ performance is reflective of that, as one faculty member reported;

‘In my experience, many of the students were ok describing but in terms of critically using that information, analyzing it to support their case to justify their answer whether for and against, it was not so great, meaning the ability administrated to support that. However, about five or six students there is, but out of a class of 46, I suppose that’s not so high but then again it’s a first year subject so our role in this I assume is to help students learn those skills.’

Participants struggle mostly with analytical writing

All faculty members perceived and were in agreement that students were struggling mostly with analytical writing rather than thinking critically, as they were fully capable of using their minds in analytical and evaluative ways during class discussions; however the struggle was mostly evident in constructing an argument in writing as one faculty member mentioned,

‘The one they probably find the most difficult is the analytical writing, the critical evaluation of sources and using those to

support arguments in an essay. They find that very very difficult, we try to walk them through it but there's only so much help you can give them without giving them the answers so I would say that the critical thinking is probably the thing that they struggle with the most.'

Faculty members approach to develop students' Critical Thinking

All faculty members argued that integrating more skills-based activities in the business curriculum could contribute to develop students' ability to think critically. In some cases, faculty members had to redesign a course to introduce a critical thinking block using different activities. Others attempted to promote critical thinking among students via debates during class time which they claimed helped reluctant students to orally state their point of view.

The faculty members' interviews also revealed that the issue is not exclusive to level one students, as one faculty member described a similar issue in a third year subject she taught as follows,

'Other things that I've done, in another module that I've taught, I'd a similar problem it was an IT module at level three. The students were required to write an essay on project management topic.....I probably spent six out of the 24 seminars in that module teaching them how to actually get to that point, starting from how to research the literature, to finding the relevant articles, structuring it in a very organized step by step in a highly prescriptive way and this is at level three and by now you expect the students to actually have experience with this.'

The Role of Schools and Universities

Faculty members believed that students receive detailed instructions in schools in relations to completing different tasks which does not allow them to become an independent learner. Additionally, describing concepts rather than thinking critically is encouraged in schools. Therefore, they continue to be dependant learners and they find it difficult to adapt to meet the assessment requirements successfully if they are expected to think critically in the university context.

On the other hand, another faculty member perceived that critical thinking is not integrated in a structured manner at schools or in Higher Education (HE) as she argued,

'but I don't think those skills are developed in a structured way in schools. Having said that, I'm not sure that they're developed in a structured way in universities..... So I think it's the case of building it to the curriculum more at a school level, followed by university level which means there has to be a dialogue between schools and universities. And the fact that there are many different school systems and many different universities systems depending on where

you come from poses a greater challenge, because you've that diverse range of abilities and learning styles and levels of maturity in the classroom when they come to university level.'

Post the intervention

Participants' interviews and Intervention's assessment

The majority of the participants revealed during the groups' interviews that the intervention developed their knowledge of the critical thinking concept as well as its benefits, as few of them stated,

'I had no idea what is critical thinking; it was only in Organizational Behavior subject that I knew what critical thinking is.'

'I heard it [Critical Thinking] from my father at home, but then I didn't really know I'll be able to do it.'

Similarly, the analysis of " Intervention Assessment" questionnaire showed that (60%) of participants' responses ranged between "strongly agreed" and "agreed" that the intervention-related activities helped them to understand what critical thinking entails and encouraged participation in the classroom through discussions. None of the students "disagreed" or "strongly disagreed".

Schools do not incorporate Critical thinking in their curriculum

Participants' group interviews suggested that the participants were unable to define critical thinking concept before the intervention was implemented as none of the participants were able to provide an accurate and comprehensive definition, as stated below,

'For me it is like thinking for yourself, bringing out the potential in you, not that someone is telling you this and this and this. It's being reasonable in a particular situation and saying what can I do in such situation so you actually think and come up with results'

Participants who studied in Kenya and Nigeria found it very difficult to adjust to the business programme's assessment requirements as they explained that their former education was different. In school, their learning was assessed using final exams which emphasized memorizing information rather than thinking critically, as one participant mentioned,

'everything was totally strange to me, in Nigeria the education system was totally different from the United Arab Emirates.'

'For me, coming from Kenya. My education was "A" levels, it was mostly reading and sitting for the exams, nothing much in research. The most research you can do is going through your textbook or past papers.'

Additionally, schools do not emphasize analytical writing skills, as one participant pointed out,

‘the writing part was a bit tough because in schooling we never did something for more than 200 words essay for English so to write 2000 words I was short of words!’

Discussion

The intervention introduced undergraduate business students to Critical thinking

The study findings indicated that the intervention contributed successfully towards developing the participants’ awareness of the critical thinking concept. This represents a positive and significant outcome for those who aim at establishing undergraduate business students’ awareness of critical thinking. It also revealed that it is very beneficial if faculty members clearly define and explicitly introduce critical thinking especially in highly diversified classroom settings as Turner (2006, p.3) argues that critical thinking definitions are often unclear to students, and emerge from cultural knowledge traditions rather than universal measures of higher learning. This supports previous research which claims that, introducing students to the components of critical thinking consistently in college is considered a crucial step in developing their ability to think and question further (McEwen, 1994; Rfaner, 2006).

The participants in this current study were predominantly from India and Pakistan stated that they almost never heard their school teachers articulating and discussing the CT concept in a classroom setting. Nonetheless, they are required to think critically throughout their business degree to meet the assessment requirements successfully. The Higher Education in countries such as Britain emphasizes acquiring and applying critical thinking skills throughout the business curriculum as in the case of Middlesex University. Therefore, the participants reported feeling frustrated as they were expected to develop those skills quickly during their studies at the university, which is challenging considering the complex nature of that particular concept. Western Higher Education is perceived by many as placing great importance on acquiring critical thinking skills (Garrison, 1991; Pithers & Soden 2000), however, the issue that remains vastly unexplored in research is the impact of teaching Business and Management programmes in highly diversified classrooms (Turner, 2006, p.3) such as United Arab Emirates, in which students were not exposed or encouraged to think and question prior to university. There is a significant need for research in that particular area possibly in the context of larger scale comparative studies.

Similarly, faculty members participated in this study reported that they were often frustrated by the lack of students’ ability to think critically and write analytically during the years they studied at the university. However, they all preferred to deal with those issues independently and in various ways. That

indicated that they perceived that issue as an isolated one and related only to the students in their classrooms, rather than a broader one which affects the Business cohort and curriculum as a whole and Higher Education in general. The need to develop students' CT skills incrementally is vital to achieving that goal in Higher Education and requires those responsible for designing the business curriculum to acknowledge the nature and scale of that issue. Faculty members' collaboration and combined efforts to address those issues collectively could produce consistency in developing those skills and help faculty members to share and learn from each other's approaches in doing so.

The study had a number of strengths as well as limitations. The sample size is considered a limitation in this study. The participants in total were 167 business students which do not allow generalizing the study findings to the entire business programme. Another limitation is that a six weeks intervention is considered as inadequate to fully develop UBS knowledge of the critical thinking concept which is consistent with previous research studies. Those studies argued that it is very unlikely for that particular skill to develop over a semester time (Rfaner, 2006, Wolcotta, Barillb, Cunninghamc, Fordhamb & St. Pierred , 2002).

The intervention in this study indicated that the content of first year subjects does not allow for incorporating activities related to developing CT skills. The content focused primarily on knowledge acquisition rather than developing the students' ability to think and question. Those findings resonates with previous studies which argued that in order to allow students time to engage in activities which are likely to develop their CT, the first year subject knowledge-related content should be reduced to incorporate such activities (Pithers & Soden , 2000). However, research shows that balancing classroom time between course content and developing students' skill to think critically remains as a challenge to many tutors (Braun, 2004).

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