UNDERSTANDING FIRST YEAR UNDERGRADUATE STUDENT PERCEPTIONS OF COPYING AND PLAGIARISM: DEVELOPING A PLATFORM FOR A CULTURE OF HONEST INQUIRY AND THE ACADEMIC CONSTRUCTION OF KNOWLEDGE

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Abstract: Academic integrity is a concern in tertiary institutes globally with some perceiving it as endemic. Amongst the issues raised by this practice are serious ethical considerations. Impacts on learning are also evident in that if students are not doing their own work, what is actually being learned? The reasons why students plagiarize are therefore a legitimate area of study and may not be as straightforward as they first appear. The main objective of our research was to gather data which would highlight the perceptions first year students have concerning the proportion and frequency of cheating among their peers. There was also interest in discovering what students considered to be the main reasons for such behaviour. Findings show that at the start of the undergraduate programme, three quarters to four fifths of the students viewed copying as serious or very serious. However, after only one semester this percentage had dropped considerably for some areas. Frequency of cheating also varied from the first to the second semester. Such data has resulted in considerations of what kind of changes might be required in order to minimize the perceived “need” to copy or plagiarize, and generate institutional discussion on the issues. The paper highlights proposals for structural and content changes to curriculum focus, delivery, and the learning environment, based on current good practice in these contexts within our institute, in particular, concepts and practices of student ownership and buy in which we believe removes a significant part of the “need” for copying and plagiarism.

Introduction

The study described was carried out in response to expressions of concern about copying and plagiarism, similar to those encountered in many tertiary institutes worldwide. That copying and plagiarism are a major problem in many spheres would not be contested. Headline cases have included the suspension of Fareed Zakaria, the case of Romanian Prime Minister Victor Ponta, British journalist John Hari and locally, in our context, Dr Hafnaoui Ba’li who lost the prestigious Sheikh Zayed book award as a result of plagiarism. In higher education specifically it is considered by many to be “endemic in universities worldwide” (Sheard et al, 2002, p183) and not only amongst students, with the University World News for example, claiming that research in Egyptian universities is “plagued by plagiarism” (Khaled, 2008, p1). This statement could probably be reasonably generalized to other parts of the world.

Our concern as educators and researchers is to focus on the behaviours of undergraduate students in respect to these practices and explore perceptions to copying and plagiarism amongst our student body. Recent research into plagiarism and copying in universities supports anecdotal perceptions that it is very widespread and varied in
nature. A survey amongst 150 undergraduates conducted at the University of Pretoria in 2005 found that 80% of the respondents admitted to “frequently” plagiarizing assignments (Russouw, 2005). According to one British newspaper (Daily Telegraph, 2012), data derived from the university admissions system (UCAS) in the UK in 2011 revealed 8,500 students even copied personal statements written in their university applications! A survey conducted at Monash University in 2001 found that 85% or respondents admitted to cheating with 33% stating that they copied from friends’ assignments while doing some of the work themselves, 10.4% copied assignments from another students’ computer without their knowledge and 22.4% copied from the internet (Sheard, 2002).

Donald McCabe is perhaps one of the leading researchers in this area, certainly in the US and Canada, and has conducted research with samples of up to 71,000 undergraduate students over a decade (McCabe, 2005). He has found that “cheating” of various kinds is widespread and habitual. He has looked at a range of different academic environments where copying and plagiarism occur, including examinations, written assignments, research work and lab work. He found that, 42% of respondents worked with others on an assignment when asked for individual work, 38% paraphrased or copied from a written source without footnoting and 36% did likewise when using the internet. Other elements were handing in assignments copied from other students and falsifying bibliographies. Exams provided another fertile area for suspect behaviour with 11% copying from another student during an exam, 8% using unauthorized notes and 5% using unauthorized digital or electronic devices. Recently the prestigious Harvard University recently launched an investigation after “possible” cheating was discovered in roughly half the papers of a class of 279 students in the spring semester of 2011. The picture painted from the above cited research and supported by other studies as well as the day-to-day discussions that take place between educators everywhere clearly shows patterns of behaviour that are universal and apparently habitual.

Given that the practice is so common and gives rise to a wide range of concerns, it is important to identify and discuss some of the issues and dilemmas it raises. These include ethical, philosophical, cultural, social, and pedagogical questions as well as others. Academic integrity, which most institutes of higher education would at least claim to have as one of their “core values”, requires honesty and fair play in the production of original documentation and in general academic practice. Copying the work of others whether in an examination or from the internet or other sources, breaches ethical guidelines and considerations and is reasonably considered to be a form of theft. Turning in plagiarized or copied work is also arguably unfair to those who produce their own work given that the “copier” may receive a higher grade for work they did not do. This in turn undermines the integrity of the grading process and assessment system given that assessment in large part evaluates what an individual has (supposedly) learned.

Another issue is the effect on learning itself, which of course is the reason students attend university and the reason teacher teaches. Plagiarism and copying of any kind, and particularly when it becomes habitual, means that valuable skills which form the core of the pedagogical process may well not be learned. For example, the research process involves a host of skills essential to that process but also skills for life. Evaluating
sources, reading and note taking, annotating texts, paraphrasing and summarizing are all skills which might be used later in a professional (work) environment. The process also involves key critical thinking skills especially in a discussion and recommendations section of a research report. If students are plagiarizing and these skills are not effectively learned there is also an obvious effect on the quality of their preparation for later endeavours including post graduate study and work. Apart from possible “knowledge gaps”, ethical issues are also raised, in that if students are little concerned about academic integrity, what might this suggest about pre-disposition to unethical behaviour in a professional environment? A study conducted by the Josephson Institute (2009) looked at the relationship between attitudes and behaviour in high school and later conduct in adult life. It found that those who cheated on exams in high school twice or more are considerably more likely to be dishonest in later life, compared to those who do not.

More immediate consequences for the student who is caught usually involve a range of penalties increasing in seriousness which can ultimately result in expulsion from their university. This is as well as the stigma of being publicly branded a “cheat” which would likely appear on the student’s personal record and could obviously impact on their future life.

For those involved in a dynamic of copying and plagiarism, there are obviously reasons that generate such behaviours and personal perceptions related to these practices. It is likely that some forms of cheating will be viewed more seriously than others and indeed that some of the behaviours described may not be seen as cheating at all.

These were some of the issues focused on in our investigation at the Petroleum Institute (PI) in Abu Dhabi, the capital of the United Arab Emirates. At present, baccalaureate and post-graduate degrees are offered in Chemical Engineering, Electrical Engineering, Mechanical Engineering, Petroleum Engineering, and Petroleum Geosciences Engineering. Set up in 2001, it is in the unique and fortunate position of being supported, financed and governed by a national oil company and its international partners. Approximately seventy per cent of the undergraduates are Emirati and thirty per cent expatriate. While the degree programmes are open to both male and female students the two are, for the most part, segregated in order to comply with cultural sensitivities. The medium of instruction is English, (as it is throughout higher education in the UAE) and for most of the student population it is an additional language. While some may be quite fluent, many have a relatively low level of language proficiency on entry to the degree programme. It is reasonably fair to say that high school does not prepare them particularly well for the rigors of undergraduate study. The investigation described below was carried out in response to expressions of concern about copying and plagiarism, similar to those encountered in many tertiary institutes worldwide.

**Methodology**

The main objective of the research was to gather data which would highlight the perceptions first year students at the PI have concerning the proportion and frequency
of cheating among their peers. There was also interest in discovering what students considered to be the main reasons of such behaviour. A survey comprising five sections was developed to gather quantitative data which would answer the following four questions:

- Is academic dishonesty an issue at our institution?
- How serious do students consider it?
- How frequently do students believe it occurs?
- What are the reasons for such behaviour?

A seventy-five per cent response rate form a total of 185 first year students was recorded, comprising 87.5% of first-semester male students, 80% second-semester female students, and 57.5% of second-semester males. As such we were able to consider gender differences as well as any changes in students’ perceptions of behaviour that may have occurred between entering the degree programme and after the beginning of the second semester.

Main findings

1. The first section of the survey was concerned with finding out if students were aware of the institute’s academic integrity policy and honour pledge. The vast majority (90%), of both second-semester male and female students stated they were, whereas just under a third of first semester students claimed that they were not. Only half of these students had actually read the document. Four times as many male as female students surveyed said they did not actually understand it.

2. In response to the focus of the second section on student perceptions of the seriousness of academic cheating it can be surmised that approximately three quarters to four fifths of students who had recently begun their undergraduate programme believe that the items for consideration—copying homework, in a test, a colleagues answer, providing answers or doing homework for a friend or colleague, as well as plagiarizing work and passing it off as their own and paying someone to do their work—are serious or quite serious academic offences. It was, however, surprising to discover that after one semester, this percentage had dropped considerably in some areas. For example, half of male and female students did not consider copying homework, doing the homework of a friend or having the friend do it for them to be serious. Any form of cheating in exams, quizzes or tests was still perceived to be a serious academic offence.

3. The data also showed a change in the frequency of cheating from the first semester to the second. Almost all first-semester students claimed that they rarely or never copied homework from a colleague or from notes in a test nor did they provided answers for their friends or pay someone to do their work. Just over a month into their second semester, around half of both male and female students stated that they frequently or sometimes copied homework assignments, and over a third of males allowed friends to copy homework and quizzes.
4. There is a strong belief, among second-semester male and female students in particular, that cheating in various forms is quite rampant, especially on homework assignments.

5. The final section of the survey asked students to identify what they considered to be the most likely reasons for poor academic integrity. The choices included poor time management, a low chance of being caught or reported, minimal penalties, worth the risk to get a better grade, normal behaviour, having actually been taught to copy in high school, lack of understanding of how to complete the assignment, too much effort required, the author's words are best, poor command of English, and a general lack of interest. For first semester students the most likely reasons were a lack of proper understanding of how to complete the assignment and it being worth the risk to get a better grade. This was followed by a general lack of interest, a lack of time, low penalties and the belief that the author's words were in fact too good to change. A low chance of being caught, too much effort required to paraphrase or their English not being good enough, did not rate as highly as probable reasons for cheating.

6. A semester of undergraduate study showed some changes in most probable reasons for such behaviour. Poor time management was clearly the most likely reason for students to cheat. Students were aware of the penalties but considered it worth the risk to achieve a higher grade. This was followed by a poor understanding of the task requirements.

7. While gender differences were generally not extreme, varying no more than five to ten per cent on most responses, data does suggest that females take cheating more seriously. For example, twice as many females as males stated that they had actually read the institute policy on academic honesty, and ninety per cent of them believed that they fully understood it as opposed to about two thirds of the male students. Ten per cent more females than males consider cheating on exams, quizzes or tests, and helping friends in them, to be serious or quite serious, and two thirds of the female respondents and only half of the males believe that cheating on homework is serious.

Discussion

The main findings described above are consistent with other studies (Bjorklund & Wenestam, 1999 and Akande 1998), with poor time management and low understanding of the task ranking high. One might assume that students studying in a second or additional language often struggle with tasks and this may cause some temptation to cheat but our results show that “lack of understanding of how to complete the assignment, too much effort required, the author’s words are best, and a poor command of English” were not rated highly by respondents as causes for cheating. This may well be due to the nature of the curriculum in their chosen majors in engineering with a heavy focus on traditional math, chemistry and physics. However, language may be an additional factor here as anecdotal evidence indicates misunderstanding based on ineffective decoding of teacher language (one of the researchers is currently gathering
qualitative data on this area) with an additional cultural element of students often not asking for clarification as they do not want to lose “face”.

It is not surprising that students do not read the policy—length and sophistication level of the document, and the fact that they have rarely had opportunity to engage in critical reading is hardly conducive to satisfactory compliance. Knowledge of policy does not, however, seem to be a factor in modifying behaviour with respect to cheating and plagiarism, perhaps in the same way that knowledge of traffic policy often has no impact on driver behaviour. Sheard et al also indicated high levels of student awareness of policy (84%) but little effect of this on levels and patterns of cheating. A further issue in our environment was the high number of students who did not understand the policy anyway. A need for more accessible language given that our students are native Arabic speakers may be required here as the style and lexis of “policy language” can sometimes be rather mystifying, even to native speakers of the language the document is expressed in.

A low chance of being caught ranked fourth in the above study, but was not ranked highly for our sample. In the context of written assignments, particularly in required first year Communication courses at the PI, plagiarism detection software is used widely in some course but not at all in others. This may explain the student perception that chances of being caught are low. Of course, it may also be that faculty might not be vigilant in this area. The findings do suggest that students understand the moral aspects of cheating but are selective in proportioning seriousness. Frequency changes in cheating between semesters can in part be explained by students prioritizing which elements of which course to focus on in order to achieve a desired grade. This is not a perspective students arrive with in the first semester, but seems to be learned behaviour. By the second semester they have learned to develop strategies (possibly influenced by peers) to achieve a “percentage” outcome. Testing appears to be taken far more seriously than learning and students develop strategies to deal with pressure and what they see as low priority. Unfortunately, homework and engaging in the learning process does not appear to merit the same worth as cramming for quizzes, tests and exams and this is likely to be the result of the culture of high schools in the region. It also perhaps due to the fact that many students at the beginning of the transition from high school to university do not understand that one of the main purposes of higher education is to foster intellectual growth through disciplinary inquiry; they tend to understand their new environment in terms of their somewhat limited high school experience of passing courses through the memorization of knowledge, tested through quizzes and exams. This surface level approach to learning is both intellectually and physically less demanding, and if it is tolerated will likely provide far more opportunity for cheating than a curriculum which encourages deep learning (Akande, 1998). Recent moves towards a more active, experiential and inquiry-based paradigm may well foster deeper learning, responsibility for learning and greater motivation, as opposed to the more traditional approaches which tend to encourage an the rewards of depending on surface learning strategies.

One thing that did surprise us a little was that students who generally (if you ask them) would describe themselves as religious, even defining themselves as such before other labels, did not seem to have any behaviour or perceptions of cheating as unethical
that were any different from studies carried out with students in more (nominally) secular societies such as the US. Rettinger’s (2005) study indicates that

“among these religious students, more religiosity correlates with reduced reports of cheating in all courses. This result appears to be due to the unique effect of religion on self-reported cheating rates and, depending on course content, on a reduction of grade orientation in religious students” (p107).

We might have reasonably expected to find something similar here, but it was not apparent in our results. Other factors such as Hofstede’s (2001) uncertainty avoidance (if accurate) might also lead us to assume that cheating in general might be less likely to occur, especially given (under the social norms trait) a supposed tendency towards conservatism and a belief in law and order. Ergo, if your institute has a stated policy (law) against plagiarism and cheating you should follow it. This does not seem to be the case here, even though most local universities have academic integrity/honesty policies. For example, a local study (Gulf news, 2012) indicated that 78% of respondents admitted to some form of cheating.

In general terms, the relationship between globalism and secularism is well explored (Beyer, 1994 and Alvey, 2003) and while it is not the purpose of this paper to enter the debate, secularization may well play a part in why our students behave in the same way as students anywhere. Further study would reveal the significance of this affective factor. Indeed, Hatherley-Greene (2012) states that in the UAE, we might be “witnessing . . . a neo-indigenous effect produced by globalization and the UAE’s own cultural tsunami.”

Research has also posited several possible other indicators of the propensity to cheat. One of these is the theory that those who come from collectivist societies, societies which are considered to manifest high uncertainty avoidance, and with a synchronic/short-term perception of time are perhaps more likely to adopt surface level approaches to learning, focusing on correct answers rather than process and analysis—a more individual approach favoured by the west (Hofstede, 2001). However, Hatherley-Greene (2012) believes that undergraduate students in the UAE do not consistently conform to the stereotype of the typical Arab cultural pattern yet still demonstrate quite a high level of cheating in areas they do not rate seriously, such as copying homework.

While ethical considerations and approaches to the “hearts and minds” aspect of this problem should certainly be sustained, there are clearly issues with the usefulness of a uniquely ethics-based approach. Similarly a lot of attention is given to detection and punishment. It may well be that both of these somewhat miss the point and that answers lie more in the sphere of curriculum, teacher/student relationships, classroom organization/management and the very nature of the courses and learning experiences we offer our students.

**Approaches to creating a culture of academic integrity**

How, then, do we change perceptions of learning and how do we move towards a more critical, deep learning approach when rote learning and the belief that there is one correct answer is entrenched? Much of the design of the two first year Communications
Figure 1. Responsibility for academic integrity

has been informed by two sets of learning principles—McCabe and Pavela's (2007) ten principles of academic integrity, and Chickering and Gamson's (1987) principles of good educational practice. As shown in Fig.1 below, academic integrity is the duty and concern of all members of the community.

One part of the PI’s mission statement (Petroleum Institute, Abu Dhabi, 2003) is to foster an “intellectual environment that leads to the development of our graduates as whole persons and as the future leaders in their respective fields of expertise.” One aspect which reflects the whole person development of the graduating student is that they “should have the professional integrity and maturity to serve humanity and its highest values, and should always make ethical decisions as they relate to society, corporate operations, technology, and the environment.” An academic honesty committee exists with the duty of considering incidences of cheating, recommending suitable sanctions, and more recently to make recommendations based on data for improvements to policy. A code of honour also exists, and students are required to sign a pledge attesting that each submission is their own work, and serves as a reminder of the institute’s commitment to maintaining a culture of academic integrity.
Documentation regarding widespread cheating in higher education however, suggests that policy and sanctions alone do little to change student attitudes to copying and plagiarizing. When the focus of much current practice is still very much on the ability to recall content, and provide answers rather than describe processes, there is abundant opportunity for students to resort to copying. Perhaps a move towards a more active, experiential and inquiry-based paradigm is more appropriate approach if learners are to become more responsible for their own learning, explaining understanding, and developing critical thinking.

The first year Communication courses have been developed to compensate for the poor preparation many of our students have for the requirements of twenty-first century undergraduate study. While the main objectives are to improve communication skills, enabling objectives include developing appropriate study skills, and applying critical thinking to reading and writing. The general philosophy is that cognitive academic language proficiency best develops through the acquisition and articulation of knowledge and understanding. The courses introduce students to real world research and ask participants to take on the role of apprentice researchers. Rather than being taught discreetly, language skills are developed in the context of a primary research project, and are “embedded in the nature of the activity rather than being taught in isolation or bolted on,” (Craig, 2011, P72). The research projects are team-based and once teams have identified and brainstormed (with appropriate instructor guidance) suitable topics for investigation, (recent topics have, for example, included issues of high school to university transition) they are given instruction in library search strategies and are asked to provide a short written overview of the selected source, complete with a live link for the instructor. Following class activities in summarizing, paraphrasing and quotation, the next task is to write a summary. Substantial feedback is provided before teams begin working on synthesizing their knowledge in a literature review. The process requires each team member to explain the content and relevance of their chosen article while team members take notes and ask for clarification. Once this phase of secondary research is completed, teams are asked to localize the global issue. A formal proposal is required in which students outline the aims and objectives of their intended primary research, as well as identifying and producing a suitable data gathering instrument. As the research develops, students are required, individually and in teams, to describe, explain and justify each stage, culminating in collaborative written reports, and oral presentations. Documentation is generated by the primary research process, with each new text building on and incorporating edited elements of previous documents and developing schema and knowledge from that process. Given that the focus is on developing students’ understanding, the need to turn to an external model to copy from is radically reduced and student ownership consequently increases. For example, one area where typically students tend to copy is the literature review. According to Levy and Ellis (2006), “Novice researchers tend to approach the literature review as nothing more than a collection of summaries of papers or an elaborated bibliography” (p182).

Our students, however, are required to select articles based on how the concepts, ideas and practices contained in them can inform their research. The review is therefore not a document in isolation, but rather integrated into the report as part of a raison
d'tre for decisions made in the research, such as informing methodological decisions and, as such, demonstrates the quality of students' critical thinking. Themes used to organize and construct surveys, for example, are typically derived from the review as are sub questions the research might focus on. The approach to the review (purpose) and the application of knowledge derived from it again reduces the need to plagiarize. It is therefore the nature of the tasks themselves which leads students to produce their own work. For instance, the recommendations section of the research report is approached first with a set of negotiated criteria as to what informs effective recommendations. These include identifying relevant stakeholders and beneficiaries, responsible parties who will apply the recommendations, appropriateness and applicability and so on, all of which is conditioned by the focus of the primary research of each team. It is simply not necessary (or really possible) to cut and paste a set of recommendations from some other context. Further, by this stage of the learning process, most students have a high level of buy in and ownership and are more concerned with originality.

This approach has by and large been, not only both in demonstrating critical thinking and understanding of content but also in significantly reducing plagiarism. This is largely due to the fact that each stage is carefully scaffolded which removes the need for copying, as task fulfilment cannot be achieved through reliance on “cut and paste” or lack of acknowledgement. There is no content as such to be memorized or copied, and any attempts to fool the reader are easily detected and challenged. Each member of the team is responsible for making sure there is no plagiarism, and in the process learns to describe each stage of their research, supporting their observations with primary data and reference to the literature. Students develop ownership, buy into the approach which simulates real world, adult, professional activity, learn that task fulfilment is rewarded and that not only is there no “need” to cheat, there is no opportunity.

Conclusion

The skills that are developed in these first year Communication courses can only be maintained if similar approaches are used throughout the curriculum. Expectations which are communicated to students through clear, achievable tasks and descriptions, transparent assessment and an inquiry based approach to learning would be a huge step in developing a deeper conceptual understanding required for higher order thinking. Other departments are beginning to follow suit in applying inquiry based approaches, and have adopted studio methods in the sciences. While no empirical data is available as yet, anecdotal evidence suggests that there is both less opportunity and need to cheat. Tasks are more concerned with documenting process and findings than with the memorization of content and students report being far more engaged than in the traditional methods often found in engineering schools.

While a clear interest in the issue is becoming evident in the region, future research into academic honesty at higher education institutions in the region could well focus on faculty perceptions and practice (particularly levels of tolerance) and their approaches to dealing with incidents. Other research questions might determine differences between departmental responses, between new and long-term faculty, and also differences between local and expatriate faculty.
References


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