Original Article

Understanding of and attitudes to academic ethics among first-year university students

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ABSTRACT

This study aimed to explore the understanding of and attitudes towards academic ethics of first-year students at a South African University using a paper-based survey that yielded 3611 respondents. A degree of confusion and ambivalence regarding academic ethical issues exists. The relative wealth of respondents also appears to influence the understanding of and attitudes to academic ethics. Millennial students have a tendency to disregard ownership of knowledge. There is a need for instruction in academic ethics to instil an awareness of integrity in academic pursuit, coupled with an understanding of the world views of millennials.

Key words: Academic dishonesty, millennial students, plagiarism, relative wealth, South Africa

INTRODUCTION

Historically, a major goal of tertiary education has been to influence the development of ethical and moral members of society (McWilliams and Nahavandi, 2006). In this regard, in addition to providing students with an education that equips them intellectually to contribute to the growth and prosperity of society, universities should simultaneously impact the development of the moral competence of students (Palmer and Zajonc, 2010). In seeming contrast, however, a rise in academic dishonesty of students has been witnessed locally (De Bruin and Rudnick, 2007), regionally in Africa (Aluede, Omoregie and Osa-Edoh, 2006) and in other parts of the world, for example in the United Kingdom (Elander, Pittam, Lusher, Fox and Payne, 2010), in the United States of America (Embleton and Helfer, 2007; Hard, Conway and Moran, 2006; Yardley, Rodríguez, Bates and Nelson, 2009), in Asia (Chapman and Lupton, 2004; Lin and Wen, 2007) and in Australia (Devlin and Gray, 2007; Lee, 2009). Such dishonesty transgresses the fundamental values of a university, which are based on a system of ethics where the "concept of 'right' exists within a deeper purpose toward society, and [is] held together by the loyalty to that purpose" (Rantz, 2002, p. 458).

The 2011 cohort of first-year students can be classified as part of the 'millennial' generation, born between 1982 and 2002 (McAlister, 2009; McClellan, 2009). To ensure that the university fulfils its mandate of nurturing academic integrity in these students as one of the "fundamental values" of higher education (Schmelkin, Gilbert, Spencer, Pincus and Silva, 2008, p. 587), it is necessary to understand what they believe constitutes academic honesty or dishonesty, as well as their attitudes towards these issues. Accordingly, the overall objectives of the study were to explore the understanding of and attitudes towards academic ethics of first-year students registered at a South African university.

This study contributes to a thus-far relatively under-researched problem in South African universities. In so doing, the study drew a substantial sample from a large heterogeneous population of first-year students at one of the largest public universities in the country. The findings can serve to inform potential strategies of action to be considered in the specific university at which the study was undertaken, and possibly in other South African universities, to instil in first-year students an awareness of and an appreciation for integrity in academic pursuit.

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Academic dishonesty and plagiarism

Currently, no commonly accepted definition exists of academic dishonesty or, what Ghaffari (2008, p. 90) refers to as "academic disintegrity". Specifically, there appears to be no consensus about definitions that relate to the various behaviours that constitute particular forms of academic dishonesty of students (Comas-Forgas, Sureda-Negre and Salva-Mut, 2010; Schmelkin *et al.*, 2008; Trost, 2009). For example, if a student submits, for examination, an assignment previously presented for another course without permission to do so, does this constitute cheating because the student omitted to write a new assignment, or is it not considered to be cheating as the assignment comprises the student's own work? Aluede *et al.* (2006) note the difficulty of finding a definition of academic dishonesty that satisfies all stakeholders. In the absence of clear definitions, terms such as 'examination malpractice,' 'cheating,' and 'dishonesty' are used interchangeably, which may contribute to the differing understandings of academic dishonesty that exist between faculty members and students (Burrus, McGoldrick and Schuhmann, 2007).

Various theorists (Aluede *et al.*, 2006; Park, 2003) have attempted to describe academic dishonesty as behaviour that includes the following: Cheating, fabrication, copying from others during an examination or assignment, communicating examination information to or receiving such information from another person during an examination, allowing another to do one's assignment or a portion thereof or using commercial assignment services, altering examination answers after an assignment has been completed or altering recorded grades, resubmitting a previously submitted assignment for a new course without the permission of the course instructor, examination leakages, impersonation, cheating, collusion, swapping of examination scripts, smuggling of answer scripts into the examinations hall, forgery of results/certificates, verbal/physical assault on examinations administrators, using fraudulent excuses or facilitating the acts of dishonesty detailed above.

In a study of over 80,000 students and 12,000 faculty members surveyed between 2002 and 2005 in the United States and Canada, McCabe (2005a) found that about 21% of the students admitted to engaging in a form of cheating in examinations although the majority appeared to understand what constitutes cheating behaviour and rated it as a serious transgression. The findings of this study also indicate that cheating in written work is more prevalent than cheating in examinations, again with students rating such cheating as a serious transgression. Brown, Weible and Olmosk (2010) report that 100% of the students in an undergraduate management class admitted to cheating. In a small sample of 48 students, Jones (2011) found that 92% indicated that either they had or knew of someone who had cheated in academic work. The identified

incidence of student academic dishonesty is considered to be under-reported (Martin, Rao and Sloan, 2009; Miller, Shoptaugh and Parkerson, 2008).

A variety of demographic, psychological/personality and situational factors have been linked to cheating by students. With regard to demographic factors, the following have been associated with cheating: Younger and unmarried status (Kisamore, Stone and Jawahar, 2007; Smyth and Davis, 2004; Whitley, 1998), junior levels of study (Nejati, Ismail and Shafaei, 2011) and a lower grade point average (Burrus *et al.*, 2007; Lanier, 2006). Research linking academic dishonesty of students and gender is mixed (cf. Bateman and Valentine, 2010; Nejati *et al.*, 2011; Smyth and Davis, 2004; Whitley, 2001; Whitley, Nelson and Jones, 1999). Psychological and personality factors associated with dishonesty of students include external locus of control (Rettinger and Jordan, 2005), immaturity (Antion and Michael, 1983) and participation in cohesive extracurricular activities (Williams and Janosik, 2007). Staats, Hupp, Wallace and Gresley (2009) note that bravery, honesty and empathy are characteristics evident in students who do not cheat. Situational factors associated with dishonesty of students have been found to be related to a lack of peer disapproval for such behaviour (McCabe and Treviño, 1993), a perceived lack of penalties for cheating (Bisping, Patron and Roskelley, 2008; McCabe and Treviño, 1997), perceived unfairness of instructors (McKendall, Klein, Levenburg and de la Rosa, 2010) and large size of classes (Crown and Spiller, 1998). It has been suggested that today's students are being pressured to be successful, which may account for their taking shortcuts in academic work (Gross, 2011; Woessner, 2004; Zwagerman, 2008).

Based on studies emanating from two South African countries, Gbadamosi (2004) found a strong correlation between misconduct of students in examinations and later behaviour in the workplace, with misconduct in examinations being predictive of a lack of business ethics in later working life. This link has also been noted in international research (Anitsal, Anitsal and Elmore, 2009; Boyd, 2010; Martin *et al.*, 2009). Summarising this position, Kidwell and Kent (2008, S4) note that "what [students] learn as acceptable behaviour during their course of study may well inform their expectations of acceptable behaviour in their professional lives."

Plagiarism, specifically, as a subcategory of academic dishonesty, is "the act of using another's work without appropriate acknowledgment" (Devlin and Gray, 2007, p. 182) or "the inappropriate, unauthorized, unacknowledged use of someone else's ideas as if they were original or common knowledge [including]… incomplete or vague references that tend to mislead the reader into misidentifying one person's ideas for another" (Gotterbarn,

Miller and Impagliazzo, 2006, p. 2). Such misrepresentation of the intellectual ideas of others without due attribution can include copying of identical words or phrases and careless paraphrasing (Honig and Bedi, 2012).

Plagiarism is a form of unethical behaviour as it involves cheating (Amanullah, 2006) and intellectual theft (Hansen, Stith and Tesdell, 2011). It is fraudulent behaviour in that it rewards the plagiarist for the intellectual property of the original author (Gullifer and Tyson, 2010). As such, it transgresses values central to universities, namely, honesty, trust and fairness (Keohane, 1999), where the ownership of intellectual ideas is fundamental to the academic pursuit (Perfect and Stark, 2012). Gullifer and Tyson (2010, p. 463) argue that plagiarism contributes to the "eroding [of] the moral value of honesty," whereas Staats *et al.* (2009, p. 172) state that students who cheat put "immediate personal gain above virtue, the good of other students, and the integrity of the university".

As with the concept of academic dishonesty, variations of the definition of the term 'plagiarism' exist (Gullifer and Tyson, 2010). In addition, ignorance of faculty members about practices that constitute plagiarism and the relevant policies compounds the confusion of students (Carroll, 2005).

Some researchers (cf. Boisvert and Irwin, 2006; Gotterbarn *et al.*, 2006; Pennycook, 1996; Scollon, 1995) suggest that plagiarism by students is impacted by national cultures where interpretations of the definition of plagiarism may vary. Leask (2006) notes that when learning styles of different cultures hinder critical thinking, students may plagiarise to cope. Clarke (2006, p, 103), however, disputes the 'cultural relativity' of cheating. Similarly, Liu (2005) states that many authoritative sources denouncing plagiarism exist in eastern countries, where learning styles are often accused of promoting such practice by students.

Plagiarism by students is often attributed to ignorance of the rules of referencing, authorship and attribution, and to procrastination that leads to acts of expediency or to cheating to achieve higher grades (Anson, 2011). Its increase has also been attributed, largely, to the ease of Internet access to information (Jones, 2011; Mutula, 2011; Power, 2009), with over 300 websites selling papers of students or providing them free of charge (Happel and Jennings, 2008). In a study of over 1200 undergraduate students in the United Kingdom, Selwyn (2008) found that three-fifths of these students reported having plagiarised from the Internet during the prior 12 months. Howard and Davies (2009) propose that, due to the ease of access to the Internet, the boundaries for students are blurred between their own, original work and that which they 'cut and paste'. In addition to this ease of access, the problem is compounded by the absence of a clear and

unambiguous definition of plagiarism (Comas-Forgas *et al.*, 2010; Mahmood, Mahmood, Khan and Malik, 2010). In a study of undergraduate perceptions of plagiarism, Breen and Massen (2005) found that students had difficulty understanding the areas of nuance surrounding plagiarism (for example, paraphrasing and the citing of ideas), although they appeared to have a clear appreciation that quoting direct words of sources constituted an offence. Similarly, Gullifer and Tyson (2010) found their sample of undergraduate students to be confused about the behaviours that constitute plagiarism in spite of access to detailed institutional information on the subject. Summarising decades of research to plagiarism by students, Hughes and McCabe (2006) note the link suggested by several researchers between plagiarism and an inability to write fluently in a second language, where direct copying of expressions and sentence structures may contravene the expected protocol of academic writing. Ellery (2008), in a study of first-year South African university students, reports that a quarter of her sample of students committed plagiarism in their essays, in spite of explicit instruction and tutorials that address the development of skills of academic writing. Pittam, Elander, Lusher, Fox and Payne (2009) note the importance of addressing academic dishonesty of students through assisting students to develop confidence in writing, as well as providing them with an understanding of authorship and the requisite knowledge to avoid cheating, especially plagiarism.

Moore-Howard and Davies (2009) note how plagiarism is carried through from preuniversity years into university study, and Marsden, Carroll and Neil (2005) argue that graduates who have plagiarised pose a threat to society in terms of the later professional advice and decisions that they may render in business.

In an attempt to address the growing problem of academic dishonesty of students, universities have embarked upon introducing policies of academic honesty and honour codes (Levy and Rakovski, 2006), integrating the teaching of ethics into the curriculum (Belter and Du Pré, 2009), introducing plagiarism-detection programmes (Fiedler and Kaner, 2010) and developing writing centres to enhance academic writing skills of students (Buranen, 2009; Elander *et al.*, 2010, Nealy, 2011). Miller, Shoptaugh and Wooldridge (2011, p. 170) propose the advancement within universities of 'academic integrity responsibility' or the "ownership of integrity through attitudes, beliefs and behaviors that support the role of the entire academic community (individual students, cohorts, and faculty) in promoting a climate of integrity". In this process, honour codes can play a role, but are successful in deterring academic dishonesty only insofar as they are embedded in an overall culture of academic integrity (McCabe, Treviňo and Butterfield, 2001).

Millennial students entering higher education: Attitudes to academic honesty

The first year of the academic career of a student is the one that lays the foundations for the years of study ahead (DesJardins, Dong-Ok and Rzonca, 2003). In the transition from school to university, students may face new and unfamiliar academic challenges, as well as encounter different value systems that exist at higher educational institutions (Brinkworth, McCann, Matthews and Nordström, 2009; Christie, Munro and Fisher, 2004). Students entering higher education often find it difficult to negotiate the move from high school to university (Brinkworth *et al.*, 2009) and experience not only academic difficulties, but also problems relating to the ethos, culture and traditions of the institution, described as a "clash of cultures" (Hunter, 2006, p. 10) or as "cultural dislocation" (Christie *et al.*, 2004, p. 629).

The problem of coping with new academic challenges is compounded by a lack of knowledge about how to address these challenges (Christie *et al.*, 2004). For students to succeed at university, they must achieve structural academic integration (meeting the explicit standards of the university) and normative academic integration (meeting such standards according to the ways deemed acceptable by the institution) (Braxton and Lee, 2005; Coll and Stewart, 2008). However, achieving academic integration maybe particularly difficult for some students who experience a fundamental disjuncture between their own ethical views and those of the academic staff and their institutions (Blum, 2009), or who have different views about academic honesty from those held by their professors (Power, 2009; Schmelkin *et al.*, 2008). Brimble and Stevenson-Clarke (2006) note the differences in opinions held by academic staff and their students with regard to both the seriousness of different types of academic dishonesty as well as the penalties that should be imposed for such behaviours. Academics sometimes view such discrepancies as deficits in the ethical values of their students (McCabe, 2005b).

Gross (2011, p. 435) believes that cheating by students has become more acceptable as there is a "different, post-millennial, value orientation" relating to the meaning of education and how it is acquired. Inglehart (2008) proposes that society is now more tolerant of cheating and plagiarism than in the past, and that the new attitudes of current students, reflecting a societal shift in values, cannot simply be dismissed. Grimes (2004) and Lawson (2004) suggest that rising incidences of dishonesty of students maybe attributed to new value systems that are internalised by young people who are exposed to corrupt practices in society on a daily basis.

Millennials are technologically adept, having been born after the invention of the Internet and having more exposure to technology than any of the previous generations (Hartman and McCambridge, 2011). Technology is part of the lives of millennials and is inseparable from their personal and work identities (Beckstrom, Manuel and Nightingale, 2008).

Arhin and Cormier (2007) note these students to be self-sufficient, inventive problem solvers and multitaskers. Gross (2011, p. 436) suggests that they are characterised by a preference for decisions "based on personality, relationship, and expediency rather than on abstract rules about right or wrong." In a study of 943 millennial students in the United States, Bell, Connell and McMinn (2011) found them to be pragmatic and confident, and focused on relationships.

Some commentators believe that millennial students introduce specific challenges to the academic environment. Becker (2009, p. 342), for example, describes them as "information consumers [who] flutter instantaneously from resource to resource [and for whom] authority is an afterthought". Being accustomed to sharing and learning in groups (Lippincott, 2010; Ng, Schweitzer and Lyons, 2010) and making group- or team-based decisions (Tyler, 2007), they also tend to share academic information and work together on assignments (Kerslake, 2009). Gross (2011) notes that these students hold communal interaction and collaboration in the highest regard and believe that information published, particularly on the Internet, is the property of the community and, thus, does not require any attribution. As an example, Gross (2011) states that these students regard the value 'integrity' as being a result of relationships, compassion and responsiveness, not the result of adherence to absolute rules as usually understood when issues of academic dishonesty are considered. Millennials tend to disregard expected tenets of conduct, often using peer-based norms to promote opportunism (Boyd, 2010), and they expect immediate gratification (Ng *et al.*, 2010). Blum (2009, p. 6) describes the differences in the ways these students and their teachers view the ownership of ideas and writings as "profound," necessitating "translators" to allow effective communication to take place.

Historically, plagiarism has been contextualised within a legal framework and regarded as theft (Ashworth, Freewood and Macdonald, 2003; Sutherland-Smith, 2005). However, Kincaid (1997, p. 97), as stated earlier, suggests that plagiarism and originality maybe considered "relative concepts". In commenting on the ownership of ideas, Perfect and Stark (2012) note the difficulty possibly experienced by students in separating original ideas from those discussed with classmates and colleagues and the ideas gleaned from the reading of multiple sources relating to the issue under study. Similarly, as also mentioned earlier, Brown and Murphy (1989, p. 435) advance the concept of "unconscious plagiarism", where there is unwitting recall of the ideas of others. In addition, Blum (2009, p. 30) argues that, in keeping with the belief of millennial students that

property is communal, the traditional meaning of a 'text' is challenged where it is viewed as part of "interanimating" or permeated with the embellished "selection of other voices". Blum (2009, p. 55) quotes a student whom she interviewed about the attribution of an idea as stating, "You don't own it, you just own the quickness of mind to associate".

Ashworth and Bannister (1997) note the challenge to universities to engage with the new generation of students in ways that reflect the traditional values of learning along with the postmodern value of autonomy required by millennial students. To this argument, Hutton (2006) adds that students are often given ambiguous messages by their teachers. For example, development of relationships and collaboration are generally encouraged in the classroom, but maybe interpreted by millennial students as actions that are contradictory to the requirement to acknowledge sources of ideas.

METHODOLOGY

Research approach
Quantitative analysis was applied to the data gathered through the administration of a questionnaire to survey first-year students. No hypotheses were proposed at the outset of the study. Rather, through the data-mining process that occurred (cf. Guidici and Figini, 2009), unexpected relationships between variables emerged. Ethical clearance to undertake the study was granted by the registrar of the university at which the study was undertaken.

Respondents
The population comprised all 14,894 first-time entering students registered for their first year of study in 2011 in all faculties, on all campuses and for all types of qualifications. Combined strategy sampling (Gravetter and Forzano, 2003) was used, involving stratified sampling of the population according to faculty, and then cluster sampling through subdivisions within faculties according to types of qualifications and campuses. Convenience sampling was then used to gather data from students in each cluster. This process resulted in the compilation of a database of 3,934 potential respondents who were requested to complete the questionnaire. From this group, 3,611 completed questionnaires complying with requirements of data quality, thus constituting the sample (24.2% of the population). Of this sample, 56.0% were female and 44.0% male. The sampling method ensured that the sample was broadly representative of faculties, types of qualifications and campuses, as well as of the relative size of such faculties and types of qualifications as represented at the institution where the study was undertaken.

Instrument and data collection
During August 2011, a paper-based survey containing 13 questions with 37 discrete items was distributed to and collected from the 3,934 potential respondents by the co-ordinators responsible for the first-year experience within each faculty. These co-ordinators participated voluntarily in the study and were selected to enable the collection of a representative sample in terms of faculty, type of qualification, and campus.

The instrument was created through reviewing the various forms of academic dishonesty noted in the literature. Specifically, questions were asked about access to and use of technology and the Internet, the ownership and attribution of ideas, understanding of the concept of plagiarism, understanding of the consequences of being caught committing a dishonest act and various forms of academic dishonesty (for example, cheating in an examination), as documented by Aluede *et al.* (2006), Anson (2011), Gullifer and Tyson (2010), Jones (2011), McCabe (2005a), Mutula (2011), Park (2003) and Power (2009). Questions aimed at exploring the underlying attitudes of millennial students drew on the work of Beckstrom *et al.* (2008), Becker (2009), Gross (2011) and Kerslake (2009). The first draft of the questionnaire was reviewed by senior researchers within the institution, and senior students were asked to read it and comment on its clarity. This resulted in a questionnaire with a high level of face validity that was considered sufficient for the nature of the research undertaken in the present study.

Respondents were not asked to report directly on their own honest/dishonest behaviours, and completed the questionnaire anonymously in an effort to counteract the criticism of Burrus *et al.* (2007) that survey responses are likely to contain reporting errors, especially in the case of self-reporting by students of cheating behaviour. These errors are said to occur because many students find it difficult to report honestly about their own dishonesty (McCabe, 2005b). The respondents indicated their willingness to voluntarily and anonymously participate in the study by ticking a box on the questionnaire.

Data analysis
The study was conducted using a data-mining strategy (Giudici and Figni, 2009) during which data are collected and then 'mined' for meaningful results. The data-mining strategy starts off without hypotheses. Data are first collected, and statistical analyses are then used to discover relationships within the data. The data were analysed using descriptive statistical methods. This included frequency analyses as well as cross-tabulations with standardised residuals. Because all the variables were either categorical or ordinal, cross-tabulations were selected to investigate the statistical links between the different variables (Agresti and Finlay, 2009). To check the power of the variables in this study, Cramer's V was used to analyse the cross-tabulations. Although the study itself used a data-mining approach with no set statement of

hypotheses, inherent in the Chi-squared test is the concept of the null hypothesis of no relationship between the two categorical variables being tested. Standardised residuals were used to determine the location of the statistically significant relationship amongst the response options of the different variables. Scrutiny of the standardised residuals revealed that there was only a 5.0% chance that the observed variation had not been caused by the influence of one variable on the other when absolute values of 2 or greater (or -2 or less) were reported. The statistically significant relationship was confirmed at a 99% confidence level when standardised residuals of 3 or more (or -3 or less) were found (Hinkle, Wiersema and Jurs, 1988). A positive standardised residual indicates that the observed frequency in that cell is higher than would be expected if the null hypothesis (of no relationship between the variables) was true. A negative residual indicates that the cell has a lower frequency than would be expected if the null hypothesis was true.

FINDINGS

Tables 1 and 2 note the ownership of technology by respondents and the location of their usage of technology. The information in these two tables was used to determine the relative wealth of the respondents. Most respondents owned at least a normal cell phone (61.7%). Just over 40.0% reported owning a smart phone. An inspection of the frequencies in the cross-tabulations revealed that only 5.4% indicated that they owned both a smart phone and a normal cell phone, and only 12.7% indicated that they owned neither.

A statistically significant relationship was found between respondents who reported owning a normal cell phone and those who reported owning a smart phone. [χ^2 (1) = 2479.348; V = 0.830; $P < 0.001$].

Data in Table 2 indicated that the computer laboratories in the university (52.9%) and the home computers of the students (29.2%) are the main ways in which the Internet is accessed.

The type of cellular phone (either normal or smart phone) that a respondent owned was also significantly related to the ownership of a laptop computer [χ^2 (1) = 263.055; V = 0.270; $P < 0.001$] and to having personal access to the Internet [χ^2 (3) = 441.048; V = 0.350; $P < 0.001$] [Table 1]. In the three cases mentioned above, the size of Cramer's V (ranging between 0.270 and 0.830) indicated that the relationship between the two specific variables ranged from relatively weak (0.270) to very strong (0.830).

In both instances, the standardised residuals indicated that more than the expected number of respondents who own a smart phone (according to the Chi-square

null hypothesis) also own a laptop computer (SR = 9.4) and have personal access to the Internet (SR = 13.7). It could, therefore, be argued that owning a smart phone is an indication of relative wealth because these students tend to be much more likely to also own laptops and have personal access to the Internet. All these technologies are relatively expensive in South Africa, and it can reasonably be assumed that a student with access to more than one of the technologies is part of a higher socioeconomic stratum within the sample.

Respondents were required to comment on 11 ethics-related statements and to select the option that best reflected their attitudes on an ordinal scale that ranged from "strongly agree", "agree", "unsure", "disagree", to "strongly disagree". In Table 3, the two columns indicating disagreement and

Table 1: Technology ownership

Item	Yes (%)	No (%)
Normal cell phone	61.7	38.3
Smart phone	40.9	59.1
Laptop	42.9	57.1
Desktop	22.0	78.0
Personal Internet access	28.0	72.0

Table 2: Location of technology usage

Technology	At home (%)	At university (%)	On the run (mobile) (%)	At someone else's home (%)	N/A (%)
Internet	29.2	52.9	17.0	0.6	0.3
Social media	31.0	13.1	47.9	1.8	6.2

Table 3: Responses to ethical statements

Item	Disagree (%)	Unsure (%)	Agree (%)
Something is only wrong if you get caught	75.0	9.1	15.9
Right and wrong is a matter of personal opinion	47.2	9.7	43.0
Lecturers are too strict about copying	32.2	9.4	58.3
I understand the meaning of the word 'plagiarism'	4.2	2.9	92.9
I know people who have cheated in a test	71.4	12.3	16.2
I know people who have copied other people's assignments	53.0	15.0	31.9
I will always reference when using someone else's ideas	9.0	9.8	81.3
I know what to do to avoid using the ideas of others incorrectly	7.2	21.4	71.3
I know what the punishment will be if I am caught copying someone else's work	6.4	11.8	81.7
Paying my fees entitles me to a qualification	27.5	13.9	58.6
Ideas do not belong to individuals or companies Anyone should be able to access and use them	38.9	21.6	39.6

the two indicating agreement were collapsed into broader 'disagree' and 'agree' categories.

The majority of respondents appeared to understand the meaning of plagiarism (92.9%), the importance of referencing (81.3%), actions to take to avoid plagiarism (71.3%) and the punishment for copying the work of another (81.7%), and disagreed that an action is unacceptable only if one is caught (75.5%). However, in apparent contradiction, a substantial proportion either agreed that right and wrong is a matter of personal opinion, or was undecided about it (52.7%). In a similar vein, 61.2% of the respondents were undecided or appeared to hold the view that ideas do not belong to others but should be freely accessible, and 67.7% were undecided or believed that lecturers are too strict about the issue of copying. The majority of respondents reported not knowing people who have cheated in a test (71.4%) or copied assignments (53.0%). However, a number of respondents were unsure about their positions on these two issues (12.3 and 15.0%, respectively). Over 58% reported that paying their fees entitled them to a qualification.

The last section in the questionnaire required respondents to judge (a) how serious and (b) how right or wrong these behaviours were in their opinion, as a means of gauging their attitudes towards academic honesty/dishonesty. Table 4 contains the results of Chi-square analyses that indicate the link between the reported seriousness respondents attributed to an academic behaviour and the degree to which respondents viewed the behaviour as right or wrong.

Respondents appeared to be ambivalent when according levels of seriousness to various transgressions. For example, the following were all behaviours regarded as constituting serious transgressions: Copying during a test or examination (95.9%), taking notes into a test or an examination (95.6%), having someone write a test on one's behalf (93.1%), submitting a doctor's note that was false (85.7%), using the assignment of someone else (85,3%), appropriating the ideas of someone else as one's own (85.3%), copying without referencing (85.0%), using pirated copies of licensed software (76.4%) and passing off the assignment of another as own work (71.1%). However, the following behaviours, for example, were considered relatively less serious transgressions: Collaborating with another party when preparing an assignment (48.5%), using the answers of another in homework (41.2%) and copying whole textbooks (40.3%).

Although in some cases there appeared to be a difference with regard to behaviours considered to be wrong and the level of seriousness accorded to them (e.g., using the answers of someone else in homework), inspection of the standardised residuals indicated that more than the expected number of respondents who thought some action was wrong also believed that it was a serious transgression.

Table 5 highlights the statistically significant relationships between relatively wealthy respondents (those who own a smart phone) and relatively poor respondents (those who own a normal cell phone only) in terms of their understanding of or attitudes to academic ethical issues. The various options that could be chosen are reflected in the items noted in Table 5. The standardised residuals of the various options illustrate the differing opinions of the two groups.

In all instances relating to the views on ethical statements, the wealthier respondents were less likely than the poorer respondents to consider the distinction between right and wrong a matter of personal opinion and felt that ideas are freely available to be shared.

Table 4: Attitudes to ethical issues and cross-tabulations between seriousness and right or wrong

Statement	Serious (%)	Not serious (%)	Wrong (%)	Right (%)	Pearson Chi-square	Df	Cramer's V
Copying during test/exam	95.9	4.1	98.3	1.6	965.509	9	0.354
Taking notes into a test/exam	95.6	4.3	97.5	2.5	1097.982	9	0.380
Photocopying a whole textbook	59.6	40.3	74.5	25.5	2315.858	9	0.555
Photocopying part of a textbook	30.2	69.9	42.2	57.8	1843.728	9	0.512
Doing an assignment with someone else	51.5	48.5	79.4	20.6	1813.790	9	0.494
Using someone else's assignment as your own	85.3	14.7	93.2	6.8	1950.489	9	0.510
Changing someone else's assignment and presenting it as your own	71.1	28.9	82.5	17.5	2311.904	9	0.556
Copying and pretending it is your own work	67.3	32.8	84.6	15.4	2119.841	9	0.534
Using someone else's answers in homework	58.7	41.2	90.5	9.5	1717.716	9	0.484
Copying without referencing	85.0	15.1	94.7	5.4	1764.243	9	0.491
Submitting a false doctor's note	85.7	14.3	92.8	7.2	1917.390	9	0.509
Getting someone else to write a test for you	93.1	6.9	96.6	3.5	1445.423	9	0.443
Using someone else's ideas as if they are your own	85.3	14.7	95.1	5.0	1660.923	9	0.474
Using pirated copies of licensed software	76.4	23.8	88.7	11.3	1904.573	9	0.506

$P \leq 0.001$, Df: Degree of freedom

Table 5: Relative wealth and understanding of or attitudes to ethical issues

Statement	Wealthier respondents	Poorer respondents	Chi-square
	Agreement/disagreement with statements		
Ideas do not belong to people or companies Anybody should be able to access and use them	Strongly disagree SR=2.1 Disagree SR=3.7 Agree SR=-2.7	Disagree SR=-3.1 Agree SR=2.3	$[\chi^2 (4)=52.282, V=0.121]$
Right and wrong is only a matter of personal opinion	Disagree SR=3.5 Agree SR=-2.5	Disagree SR=SR -3.0 Agree SR=SR 2.1	$[\chi^2 (4)=37.988, V=0.104]$
Lecturers are too strict on copying and plagiarism	Strongly disagree SR=5.1 Disagree SR=8.5 Agree SR=-2.5 Strongly agree SR=-7.5	Strongly disagree SR=-4.3 Disagree SR=-7.1 Agree SR=2.1 Strongly agree SR=6.2	$[\chi^2 (4)=274.831, V=0.278]$
I know what the word 'plagiarism' means	Strongly disagree SR=-2.7 Unsure SR=-2.6	Strongly disagree SR=2.3 Unsure SR=2.1	$[\chi^2 (4)=30.480, V=0.093]$
I know people who have cheated in a test	Strongly disagree SR=-2.3 Agree SR=2.8 Strongly agree SR=2.0	Agree SR=-2.3	$[\chi^2 (4)=31.193, V=0.094]$
I know people who have copied assignments	Strongly disagree SR=-2.5 Agree SR=2.4 Strongly agree SR=3.2	Strongly disagree SR=2.1 Agree SR=-2.0 Strongly agree SR=-2.6	$[\chi^2 (4)=42.621, V=0.109]$
Paying my fees entitles me to a qualification	Strongly disagree SR=2.2 Disagree SR=2.7 Agree SR=-2.8	Disagree SR=-2.3 Agree SR=2.3	$[\chi^2 (4)=37.087, V=0.103]$
	Rating of seriousness of ethical issues		
Doing an assignment with someone when supposed to do it alone	Very serious SR=-4.4 Not very serious SR=3.2	Very serious, SR=3.9 Not very serious SR=-2.8	$[\chi^2 (3)=53.878, V=0.136]$
Copying someone else's answers for small homework assignment	Very serious SR=-3.3 Not very serious SR=2.5	Very serious SR=2.9 Not very serious SR=-2.2	$[\chi^2 (3)=35.875, V=0.112]$
Pirated copies of licensed software	Very serious SR,=-2.8 Not very serious SR=3.1	Very serious SR=2.4 Not very serious SR=-2.7	$[\chi^2 (3)=35.980, V=0.112]$

$P \leq 0.001$

Wealthier respondents reported higher levels of knowing people who have both cheated in tests and copied assignments than did the poorer respondents. In addition, the poorer respondents indicated a stronger sense of entitlement than did the wealthier ones ("Paying my fees entitles me to a qualification").

CONCLUSION

The objectives of the study were to explore the understanding of and attitudes towards academic ethics of first-year students registered at a South African university.

When thinking about the increasing prevalence of academic dishonesty of students (Elander *et al.*, 2010), it is of concern that 16.2% of the respondents reported knowing someone who had cheated in a test and 31.9% reported knowing someone who had copied an assignment. Although such findings are not reflective of the view of the majority of the respondents, it nevertheless serves to confirm that the problem of cheating by students does exist in the country (De Bruin and Rudnick, 2007; Ellery, 2008).

Understanding of academic ethics

Supporting the findings of Breen and Massen (2005), the majority of respondents in the present study appeared to understand the main protocols of academic integrity (for example, the meaning of plagiarism, the importance of referencing and the intrinsic 'wrongness' of certain academic transgressions). However, such findings require further interrogation. Although over 92.0% of respondents indicated that they understood the meaning of the word 'plagiarism,' it is possible that they hold a more lenient definition of what the word means, given the fact that 58.3% believed that lecturers are too strict in dealing with this offence. In this way, these respondents possibly justify their own actions, using what McCabe (2005b, p. 28) terms "situational ethical thinking". They may also consider plagiarism and other forms of academic dishonesty to be "relative concepts" (Kincaid, 1997, p. 97). Such views would be in keeping with the apparent predisposition of millennial students to regard information as something that belongs to everyone (Blum, 2009; Gross, 2011).

One of the fundamental tenets of academic ethics is the concept of intellectual property (Sutherland-Smith, 2005). Although, overtly, respondents reported understanding what constitutes related ethical or unethical academic behaviour, there appears to be a great deal of ambivalence regarding the seriousness accorded to certain actions. For example, almost 93.0% reported understanding the meaning of plagiarism; yet over 60.0% believed that ideas do not belong to anyone or were unsure about this [Table 3]. Similarly, a substantial proportion appeared ambivalent about who decides about

an action being right or wrong and who legitimately owns ideas [Table 3]. These findings appear to further support the contention that millennial students prefer working in groups and sharing information, with little regard for authority (Becker, 2009; Kerslake, 2009; Lippincott, 2010). Only 38.9% of the respondents were convinced that ideas could actually belong to someone [Table 3]. Conversely, over 61.0% either believed that ideas do not belong to anyone or were unsure about their position on this matter. Accordingly, it can be expected that such a stance will influence the manner in which they approach their academic writing.

In many respects, these respondents personify the view of Blum (2009, p. 59):

The ideal – or myth – of originality does not drive this generation of students. They are more interested in sharing, belonging, resembling, converging. Thus plagiarism – the violation of originality – does not horrify them, does not cause them revulsion or despair. They can be taught to understand that it is a breach of academic practice, but without their feeling it intensely, the fear of plagiarism is not likely to retain its grip.

Attitudes towards academic ethics

Respondents appeared ambivalent in their attitudes towards unethical academic behaviours. Although the majority regarded certain behaviours as being serious (copying during a test or an examination, and taking notes into a test or an examination, passing off the work of another as one's own [Table 4]), ambivalent views were expressed about the 'wrongness' of other behaviours (such as changing and appropriating the assignment of another and using pirated copies of licensed software). Again, behaviours such as photocopying entire textbooks and colluding on preparation of assignments were not regarded by the majority as being wrong. If such behaviours are considered to be communal and as reflecting sharing of knowledge, then, again, the findings appear to highlight the world views of millennial students (Tyler, 2007).

The strongest indication that the respondents are part of the millennial generation was found in their attitude towards entitlement (Becker, 2009; McClellan, 2009; Ng *et al.*, 2010). Over 58.0% agreed with the statement that paying for one's fees entitles one to a qualification. Such a view appears to be linked to their possible relative approach to academic ethics, where a substantial proportion of respondents (43.0%) believed that the distinction between right and wrong is a matter of personal opinion and that something would only be wrong if they got caught (15.9%) [Table 3]. Although the latter percentage may appear to be low, it nevertheless indicates that almost 600 respondents in the sample hold this view, and it could indicate that these respondents maybe willing to break and bend the rules relating to academic integrity. The issue

at stake here may not necessarily pertain to knowledge or understanding of the rules (92.9% understand what plagiarism is and 81.7% know what will happen if they get caught cheating), but that respondents may not believe that the rules apply in their cases.

The apparent ambivalence surrounding knowledge about issues of academic integrity and attitudes towards these may reflect the lack of consensus about definitions of behaviours that constitute academic honesty or dishonesty noted to be prevalent in academia (Comas-Forgas *et al.*, 2010). These findings may also reflect a difference in the interpretation of academic ethical transgressions by faculty members and students (Blum, 2009; Burrus *et al.*, 2007).

Relative wealth: Understanding of and attitudes to academic ethics

The wealthier respondents appeared to hold attitudes that were less relative than those of the poorer respondents [Table 5]. For example, wealthier respondents were more likely to not believe that right and wrong is a matter of personal opinion. They also appeared to be more confident of their understanding of plagiarism and were more likely than the poorer respondents to believe that ideas can belong to others. They were also more convinced that lecturers are not too strict in applying rules about copying, and that paying one's fees does not entitle one to a qualification. However, these wealthier respondents were more likely to report knowing people who had cheated and were also more likely to be of the opinion that academic transgressions such as copying homework assignments and collaborating on individual assignments were less serious than the poorer respondents. On the other hand, the poorer respondents appeared to be less certain of the definition of dishonest academic behaviour, but regarded such infringements as being very serious.

In summary, it appears that the wealthier respondents understand what constitutes unethical academic behaviour (at least on the surface), but do not accord many of these behaviours the same level of seriousness as do the poorer respondents. The poorer respondents appear to be more naïve about the nature of unethical behaviour and, possibly reflective of this confusion, accord a greater level of seriousness to many such behaviours, however they understand them.

The present study appears to highlight that millennial students hold many views about academic honesty/dishonesty and the seriousness or not of related behaviours that differ from the historically accepted definitions of such. Accordingly, it is beyond question that academic institutions need to understand the world views of such students, as such understanding will impact the strategies devised to develop a common understanding of the concept of academic honesty. In this regard, the challenge to

universities to couple the traditional values of learning with the postmodern value of autonomy, held in high regard by millennial students, needs to be understood (Ashworth and Bannister, 1997).

Another recommendation emanating from this study is that extensive information-giving and training of first-year students on matters of academic honesty, academic ethics and ethics associated with the correct attribution of ideas should be provided to ensure that the understanding of academic ethics is integral to the academic development of students. This education should include communicating clear definitions of behaviours that constitute academic dishonesty, as well as descriptions of the various forms of plagiarism (Hansen *et al.*, 2011). Students should also be assisted in their transition from school to university with its new academic ethos and culture to obviate cognitive dissonance (Hunter, 2006; Christie *et al.*, 2004). Integral to such education would be instruction to students on the protocol of academic writing, including the appropriate attribution of intellectual ideas (Anson, 2011). Such education should be pedagogically contextualised within the experience of millennial students (for the next number of years), given the particular characteristics that they evidence in terms of world view. Exercising due sensitivity, lecturers and university administrators should be aware that poorer students may not have had exposure to a literary background, often instrumental in shaping insight into what constitutes the ownership of ideas. Accordingly, the need for a strong and continuous programme of instruction on academic ethics is underscored.

Care should be taken to not oversimplify the broad categorisation of the respondents as millennials. Various subdivisions have been shown to exist within the overall millennial population. For example, gender and visible minority status have been found to have an impact on world views (Ng *et al.*, 2010), and Blum (2009) notes that factors such as a sense of alienation and perceived social norms can cause differentiation within this group.

Although the present study was able to establish the views of students on various ethical matters, a study encompassing a qualitative approach would provide valuable detail in terms of the reasons why students hold certain views and the implications of such views for their academic development. It may also be interesting to compare the views on academic ethics of lecturers of first-year students with those held by the students, to ascertain whether a discrepancy exists (McCabe, 2005b) and to identify any barriers to communication between teachers and students (Blum, 2009). The distinction in the understanding of and attitudes towards academic ethics of students as determined by relative wealth also warrants further exploration in terms of understanding the social environment that may give rise to the different attitudes. The findings of the present study in this regard may also

suggest that other demographic factors may possibly exert some influence on attitudes of students to academic ethics.

If universities are to graduate students who will contribute to the development of society in all its forms (McWilliams and Nahavandi, 2006), it is essential that such students understand and practise academic honesty. The present study has highlighted the confusion and ambivalence in the understanding of and attitudes to academic honesty of first-year students at a large South African university. It is incumbent upon this university to address the educational and ethical development of these students in a way that ensures that they use the years ahead to prepare for their later meaningful contribution to society. In addition, other universities may wish to explore the issues raised in this study within their own student populations in an endeavour to address academic dishonesty of students that appears to be on the increase internationally.

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