Exploring management strategies to reduce cheating in written examinations: case study of Midlands State University

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ABSTRACT

This study was concerned about cheating in written examinations at Midlands State University (MSU). The study revealed that both male and female students cheat in written examination; business studies students cheat more than other faculties and younger (lower class) students cheat more than (upper class) older students. Factors influencing cheating in written examinations tended to be divided into situational and personal factors. Personal factors included among others; students’ ethical considerations, attitude towards cheating, social standing and program of study. Situational factors were identified mainly as religious beliefs, effects of standardised tests, desire for higher grades, peer pressure, risk and adventure seeking. The major cheating strategies were identified as the use of crib notes (CDs), writing on body parts and ordinary objects, impersonation, exchanging examination booklets, copying someone else’s work and leaving notes in toilets. Management strategies to reduce cheating were divided into two categories. The major measures in place were identified as the use of instruction manuals in examinations, vigilant invigilators, and suspension of offenders and nullification of results. Areas of improvement identified were training of staff that handles examinations, motivation of staff who run examinations, use of Circuit Camera Television (CCTV) and reducing the invigilator-student ratio.

Keywords: Academic dishonesty, examinations, cheating, factors, management strategies
INTRODUCTION

The concept of academic dishonesty is not new. Indeed there is the tendency to limit academic dishonesty to cheating in examinations yet the concept is made up of a wide range of acts of misconduct. These include plagiarism, allowing a colleague to copy your assignment, impersonation and presenting someone else's work as your own. Higher Education Institutions are faced with a plethora of problems of which academic dishonesty is one. But how do students engage in cheating behaviours in an examination venue that has several invigilators milling around? This research answers this question by exploring cheating strategies used at university level with the aim of deducing management strategies to reduce it.

Studies in other countries have concluded that cheating is a real problem boggling higher education institutions. Teixeira and Rocha (2006) did a comparative study on cheating in universities in Austria, Portugal, Romania and Spain. Lin and Wen (2007) conducted a similar study in higher education in Taiwan while Chapman and Lupton (2004) also did a comparative study of American and Hong Kong universities specifically studying business major students. The research by Williams and Hosek (2003) focused on higher education. Kasayira, Nyanhongo, Chipandambira and Sodi, (2007) also looked at college students specifically at a teachers' college in Zimbabwe (Mkoba Teachers College). This study focused on cheating in higher education institutions specialising with Midlands State University (MSU).

Literature reviewed established the fact that academic dishonesty is an international problem that is facing colleges or higher education institutions like universities. In a study involving 2,068 students in Taiwan done by Lin and Wen (2007), 61.72% were found to have been dishonest at one time or another. The research also found out that 76% of students from eight European countries had cheated and 84% of Polish students had also cheated. Findings by Chapman & Lupton (2004) revealed that in China, 80% of high achieving scholars admitted to cheating at least once.

Closer home, information from Midlands State University Examinations Office indicated that between June 2008 and June 2010, forty-two students were caught cheating. This observation was made through an analysis of MSU examinations office information and statistics (July, 2010). It remains to be established by research if local students follow trends exposed by research on students in American, Asian and European universities.

The pattern that appears to be emerging is that cheating is a global problem affecting educational institutions. At Harare Polytechnic College there were reports of officials collaborating with students to commit acts of academic dishonest (The Sunday Mail 11-16 September 2010). According to this report, the principal for Harare Polytechnic College alleged that one of the senior lecturers had connived with four students to help them cheat in their examination. The lecturer on the other hand alleged that it was actually the principal who was at the centre of the cheating scam.

Besides being undesirable in institutions, cheating presents two problems at institutional level. Brimble and Stevenson-Clarke (2005) suggest that the first problem is that of equity and efficacy of instruction. It is difficult to measure effectiveness of instruction basing on the examination as an assessment tool when students have copied or cheated in the examination. The second problem is that cheaters reduce their level of learning and will in future be less prepared for advanced study or operating in their fields of specialisation. As observed by Teixeira and Rocha (2006), cheating in examinations became a global phenomenon increasing in frequency and becoming more sophisticated during the 1990s. Sewell, Frith and Colvin (2010) note that...
cheating is common among college students. Fifty to seventy-five percent of students confess to cheating. A research carried out in the United States of America noted that 95% of high school seniors who admitted to cheating were never caught and 70% confessed to cheating at least in one test in their college career (www.westga.edu/~cheating (26/02/2013).

Cheating has far reaching effects down-stream in the society. According to Happel and Jennings (2008), cheating in business starts with cheating in a test. Trost (2009) argues that there is a positive relationship between college cheating and the country's corruption index. Corruption and lack of business ethics impede national growth. Brimble and Stevenson-Clarke (2005) and Williams and Hosek (2003) made similar observations to the effect that students who lack academic ethics will not respect integrity in their professions as well as in their personal relationships. These particular individuals have it in their mindset that cheating is an acceptable social behaviour so they will cheat their employer, supervisor, spouse, parents and anyone else that they come in contact with.

STUDY

The study sought to establish what: the distribution of examination cheating is; the cheating strategies students use in examinations; the factors influencing students to cheat; and the management strategies that can be employed to reduce cheating by students at Midlands State University.

METHODOLOGY

The sampling methods used in the study were probability sampling methods. This permitted the researchers to specify the probability of each unit being included in the research. Stratified sampling assisted the researchers to represent all the different units in the population i.e. administrators, lecturers, students and examinations office staff and to pick participants randomly and thus, eliminating bias. There were thirty-five administrators who run examinations; forty assistants and three hundred and seventy-five lecturers and teaching assistants (Human resources - office statistics – July 2010). Total sample used was 70 consisting of 45 students and twenty five staff members. Seventy questionnaires were sent to randomly selected participants in the respective strata. Of these 40 were returned by the students and 23 were returned by the staff members. Academic records in the form of minutes from the student disciplinary and quality control committees were also reviewed. One of the researchers was an observer as students were writing examinations.

RESULTS

Response Rate

Seventy (70) questionnaires were administered to the population group. In addition, the research topic is very pertinent to these two groups as they run examinations on a daily basis from start to finish of the examination session and so had the required information readily available. Lecturers came for invigilation on stipulated days hence it became slightly difficult to effectively follow up on questionnaires distributed. The response rate of lecturers was 92%. This may be an indication that lecturers also welcomed a platform for airing their ideas and concerns.
on cheating. A total of 70 participants were considered large enough for findings to be normally distributed and generalised.

Participants Demographic Data

Data collected from questionnaires for staff indicated that 56.6% were female, 43.4% were male. A total of forty (40) students responded to the questionnaire. Of the total number, 23 were male and 17 female. This indicates that there is almost 50-50 gender balance for participants.

Forty four percent of the respondents from students were in their second year, 28% were in their fourth year and the remaining 28% was made of first years. In terms of mode of entry as students to the institution; 7 were block release, 3 visiting, 19 full time students and 7 parallel. Two were spoilt. Full time students were in the majority and findings will be influenced by their views. Thirty two percent of full time students had either cheated or witnessed a cheating incident. Forty six comma five percent of all block release students had cheated or seen someone cheat in an examination. 23% of parallel students had witnessed cheating.

Distribution of examination cheating at MSU

Findings from documentary analysis, questionnaires and observation revealed that cheating in written examinations was taking place at MSU and distributed by faculty or programme of study and gender as shown in Table 1 (Appendix 1). From these findings 43.9% of all detected cases of cheating were male while 31% of students caught cheating were from the faculty of commerce. From the questionnaires, a total of 13 staff members (30.2%) said they had seen someone cheating at one time or another in their duties as examination officials. Half of the students (50%) admitted that they had witnessed some cheating in examination venues. The number in the percentages composed of 10 male and 10 female students. In addition, 3 male students (23%) admitted to having cheated in examinations. Reference to the research studies carried out by Kasayira et al. (2007) indicates that males derive pleasure from rule-breaking and this maybe the reason for the males that admitted to cheating. It appears as if the evidence gathered is inconclusive as to who cheats- male or female. Cizek (1999) points out, that students are reluctant to confess to their own cheating behaviours but would rather give information on their friends' cheating behaviours.

The relationship between gender, level study and cheating

It appears as if gender plays no part in the distribution of cheating, a view supported by several researchers who include Lin and Wen (2007), Trost (2009), Happel and Jennings (2008) and Pino and Smith (2003). However, inferring from the statistical records kept in the examinations office, between June 2008 and June 2010, 20% of the forty-one cheating cases detected, 20 were female and 21 were male. 13 of the 23 male students (56.5%) male students indicated that they had seen someone cheat in examinations and 10 of the 17 (58.8%) female students had seen someone cheat in examinations. None of the female students admitted to having cheated as opposed to 5 male students (21.7%). In terms of level of study, none of the freshmen students admitted to having witnessed any cheating behaviours in examination venues. However, related literature by researchers who include Lin and Wen (2007), Taylor-Bianco and
Deeter-Schemez (2007), Nazir and Aslam (2010) and McCabe and Trevino (1997) have tended to conclude that freshmen (first year) students have a high propensity to cheat. 7 out of 13 second year students had either engaged in cheating behaviours or seen someone cheat in examinations. Only 2 out of 9 fourth year students had observed cheating behaviours confirming research findings by Tibbets (1999). In addition to these research findings, statistics from the examinations office also indicate that 20% were level 1.1 and a further 20.3% were level 1.2 bringing the total to 40.3% of the total cheating cases.

Programme of study

Most students who responded to the questionnaire were from the Faculty of Commerce. Respondents from the faculty of commerce constituted 22.5%. Table 2 (Appendix 2) below shows the distribution of respondents in relation to their faculties. Eight out of 13 students (61.5%) of commerce students had either cheated or seen someone cheating as compared to 33.3% from Science and Technology, 25% from Arts and 44.4% from Social Sciences. These findings seem to agree with other researchers who point out that business major students tend to cheat more than the other faculties. These researchers include Nazir and Aslam (2010) who studied Pakistani students; Rettinger and Jordan (2005), Simkin and McLeod (2009) who observed that business schools appear to have strong interest in cheating activities and Levy and Rakovski (2006) who concluded that business major students, regardless of gender and age report higher levels of academic dishonesty. Another fact to note is that even though students may say they did not cheat but saw others cheating, it would suggest that they are from the same faculty. At MSU, students seat in order of modules. For instance, if student no. 55 observes student number 59 cheating in a certain modules, chances are high the students will be writing the same module. Figure 1 (Appendix 3) illustrates these findings. Of the 13 members of staff who had witnessed cheating incidences as examination officials, only two managed to recall which examination or department of origin the examinations were from. One was from the Economics Department which falls under the Faculty of Commerce and the other one was from the Department of Surveying and Geomatics which falls under the Faculty of Science and Technology.

Cheating Strategies that Students Employ in Examinations

All respondents including staff and students indicated that there are several cheating strategies that students use. Table 3 (Appendix 4) shows these strategies and their frequency. Both staff and students reported the fact that the most commonly used methods are the use of small papers they call “CDs” (95.6%) followed by writing on body parts (65.7%), exchanging answer sheets (38.6%) and leaving notes in toilets (20%). There were 2 methods with low frequencies but have the potential of earning the university negative publicity. These were taking into the examination venue an already written answer script and knowing the examination beforehand. These two methods have a bearing on teaching staff, Departmental Chief Examiner and the Examinations Office. The implications of these two methods among others are that members of staff were conniving with students to cheat and question papers were being given to students for various reasons. The lecturers may let selected students know the examination before hand and let them answer the examination or sell the question paper. These practices, maybe what was being referred to by the minutes of The Examination Handling Procedures
Committee which was held on 27th October 2007, the committee advocated for ‘fewer hands and eyes’ on the question paper. Both students and staff agreed that students exchanged booklets and the frequency is 27.

Impersonation was also cited with a low percentage of 27.1%. During impersonation, a prospective cheater pays another student to write the exam on his/her behalf. Instead of producing their student identity card (ID), the paying student will claim that they have lost their ID and get a letter from the Students Records and Registration Office confirming that they are a bona fide registered student. This letter is given to the paid student who takes it into the examination venue. However, this letter has no photograph to identify the holder and unless the invigilator knows the student personally, they cannot tell who is who. According to the MSU Handout on Examination Regulations, currently the practice at MSU is that no student sits for an examination without a valid student identity card. If the student has no identity card, he/she prints his/her e-learning account profile that has a photo of the student. The profile has to be validated by the Deputy Registrar Academic Affairs as well as the Senior Assistant Registrar-Examinations. The profile, letter from Students Records and Registration Office and student's national identity card will be used in the examination room. For post graduate students (especially Masters Students), block release and visiting students, it is a requirement to bring to the examination venue student identity card and national identity card. An analysis of institutional archives specifically minutes of the Student Disciplinary Committee Disciplinary Hearing Reports revealed that there were students who were caught writing examinations on behalf of others and brought before the Disciplinary Committee.

Factors that influence students to cheat in examinations at MSU

McCabe and Trevino (1997) suggest that individual factors are those attributes in an individual that motivate him/her to cheat. Summarised below are the views from both students and staff on the factors influencing cheating behaviour at MSU. The factors have also tended to follow suggestions proposed by several researchers Respondents did not clearly point out that these are situational/contextual factors or personal factors but it was clear to notice the trends in the factors as indicated in Table 4 (Appendix 5).

Three (3) factors had high frequencies; students not being prepared for examinations, over- crowded venues and fear of failing and repeating given high fees. These findings echo research findings by Williams and Hosek (2003) of foreign students at Duke University. The students would not risk failing given the high cost of studying at an American University. On the issue of too crowded venues (81.4%), there is an examination venue that sits one thousand one hundred (1100) students. It is called the Multi Purpose Hall. Even though there are over 20 invigilators for that venue, 2 assistants, a chief invigilator and the chief examinations officer, cheating cases almost always surface in this venue confirming Chapman and Lupton (2004) who notes that large classes decrease effective surveillance and increase students’ chances of cheating. Brimble and Stevenson-Clarke (2005) also assert that large classes increase chances of cheating.

Students are sometimes heard jokingly saying that ‘the Multi Purpose Hall is a multipurpose venue and one of the purposes is cheating’. It is evident that students at MSU do cheat in written examinations, confirming the global trend of students cheating in examinations as has been found out by various researches.
Management Strategies Employed to Reduce Cheating

In attempting to establish management strategies that can be used to reduce cheating, respondents indicated what measures were already in place as well as other strategies that could be employed by the university to reduce cheating as indicated in Table 5 (Appendix 6).

Forty-eight point six of all respondents suggested training for staff who handle examinations. Only 2.3% of staff suggested observance of strict rules during preparation of question papers. This is stipulated by the rules and regulations of the Examinations Handling Procedures Committee that emphasises ‘fewer hands and eyes’ on the question paper during preparation.

Examiner/lecturer sets 3 question papers and submits them to the Faculty Quality Control Committee. After assessment, the departmental chief examiner (Chairperson) selects which questions make up the final examination paper and keeps the examinations until the examinations office calls for chairpersons to go for printing and packaging of the examinations in the examinations office. Before printing and packaging, the examinations are kept as soft copies on memory sticks and CDs provided by the Examinations Office. The memory sticks and CDs are kept in steel lockable drawers in the Executive Dean’s Office. 55.7% believed that the use of Examination instructional manuals currently used by the university was a deterrent measure. 42.8% of respondents expressed the opinion that the University could improve on examination monitoring and reduce cheating by motivating staff who handle examinations. The motivating factor cited was monetary. As invigilation is not voluntary, staff could be paid for the hours that they invigilate. This measure can be tied together with deploying more invigilators. If there is monetary remuneration for invigilation, then more invigilators will attend to their invigilation duties.

Penalties for Cheating

In an attempt to find out what management strategies can be used to curb cheating, students were asked what they thought should be done to students who are caught cheating in examinations. Five penalties were popular from the students. These were suspension, disqualification, expulsion, counselling and nullification of results. Figure 2 (Appendix 7) summarises these penalties as expressed by students.

Students believe that the most effective penalty in deterring cheating in examinations is suspension as 33% of the students indicated. Expulsion was rated as also effective with 26%. The other cheating penalties cited by students included automatic fail, warning/cautionary statement, expel from examination and face Student Disciplinary Committee, ban from higher education permanently, suspend for a number of years and awarding a zero mark in the module. Suspension period suggested by students ranged from that one examination to four years. At MSU, when a student is caught cheating, his/her case is brought before the Student Disciplinary Committee. Depending on the severity of the offence, the penalty may be nullification of results and suspension for two semesters or a cautionary statement. In extreme cases expulsion maybe recommended. However when students were asked what they did when they saw someone cheating, 35% said nothing it was none of their business, 10% said nothing, the person was a colleague. One student actually warned the cheating colleague that an invigilator was coming, one reported to their lecturer after the examination. Only one said they reported the issue to the invigilator as they wanted the culprit punished to reduce cheaters in examinations.
The pattern that is emerging is that students see their colleagues cheating but will not tell the authorities for various reasons. Happel and Jennings (2008:199) conclude students’ attitude to their fellows cheating as ‘being a snitch is worse than being a cheat’. Hence if students see someone cheating they will keep quiet.

Member of staff were asked to rank stated penalties in order of effectiveness. Figure 3 (Appendix 8) illustrates suggested cheating penalties ranked in order of importance by staff.

Staff members concluded that nullification of results is the most effective cheating penalty and counselling the least effective. Comments from members of staff were that expulsion is not effective at all as the student can choose not to tell anyone outside the university community why he has left college. Besides, the student's future is permanently ruined. Rather, nullifying the results and suspending the student gave them a chance to come back a repentant person. McCabe and Travino (2005) is against any form of sanctions as he notes that they do little more than to mar a student's record.

Staff suggested the following strategies to reduce cheating in examinations:
• Teach students on the negative impacts of cheating concurs on improved dissemination of information that Happel and Jennings (2008) and Williams and Hosek (2003) advocate for.
• Universities must consider financial reward for staff who handle examinations so as to encourage them to participate effectively
• Universities should hold seminars on examination cheating so as educate and inform staff
• Universities should investigate how students want to be assisted during examinations

DISCUSSION

Research on academic dishonesty has taken centre stage and a lot has been done in this regard. Several researchers have suggested various ways of coping with cheating. Understanding how it is perpetrated is the first step to identifying strategies that are effective in reducing cheating. Bowers (1964) in McCabe et al. (2008:379) identifies factors that deter cheating and are listed as:
• Resulting consequences or penalty (these include suspension, fining, imprisonment). If a student perceives the penalty for cheating as being harsh (the cost –benefit analysis by Williams et al. (2003), then they will not attempt to cheat.
• Chances of succeeding – If there is a combination of relaxed invigilation, large classes and smaller spaces between seats as observed by Brimble and Stevenson- Clark. (2005), students will put higher value on ‘C’ the cost of cheating and attempt to cheat.
• Ratio of invigilator to student in an examination venue. Lower invigilator student ratio will deter cheating.
• Installing surveillance cameras in large examination venues. Unfortunately, these may remain a dream in Zimbabwean universities struggle with shortages of electricity and experience liquidity crunches.

CONCLUSION

The study set out to find out management strategies that can be used to reduce cheating in written examinations. These strategies could not be deduced without first finding out the distribution of cheating, factors influencing cheating and methods of cheating. The background
to the study established if indeed students do cheat in written examinations and if so how and why do they do it. An attempt was made at comparing what is happening in various universities worldwide including American, European, Australian and Asian universities and what is happening at Midlands State University. It was established through the study that students in Zimbabwean universities do cheat and use a variety of strategies to do so. Higher Education Institutions on the other hand, do have coping strategies that they have in place to reduce cheating in written examinations. The study also established several penalties that are used as deterrent measures to cheating. In light of the foregoing discussion, it emerged that to curb cheating to reasonable levels, the institution, students and members of staff need to be more vigilant to curb or reduce cheating.

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 Midlands State University. Minutes of the Committee on examination handling procedures meeting. 28 September 2007

 Midlands State University. Reports submitted by students caught cheating. June 2010 Examinations Session
Appendix 1

Table 1: Distribution of students in relation to their faculties

<table>
<thead>
<tr>
<th>NAME OF FACULTY</th>
<th>(F)</th>
<th>%</th>
<th>NAME OF FACULTY</th>
<th>(F)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTS</td>
<td>4</td>
<td>12.5%</td>
<td>LAW</td>
<td>1</td>
<td>2.5%</td>
</tr>
<tr>
<td>COMMERCE</td>
<td>13</td>
<td>27.5%</td>
<td>NRMA</td>
<td>1</td>
<td>2.5%</td>
</tr>
<tr>
<td>EDUCATION</td>
<td>4</td>
<td>10%</td>
<td>SOCIAL SCIENCES</td>
<td>7</td>
<td>17.5%</td>
</tr>
<tr>
<td>LAW</td>
<td>1</td>
<td>2.5%</td>
<td>SCIENCE &amp; TECHNOLOGY</td>
<td>9</td>
<td>22.5%</td>
</tr>
</tbody>
</table>

Source: Survey

Appendix 2

Table 2 Cheating strategies and frequencies

<table>
<thead>
<tr>
<th>Cheating strategy</th>
<th>(F)</th>
<th>%</th>
<th>Cheating Strategy</th>
<th>(F)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use of C Ds</td>
<td>67</td>
<td>95.7%</td>
<td>Cell phone messages</td>
<td>11</td>
<td>15.7%</td>
</tr>
<tr>
<td>Writing on body parts</td>
<td>46</td>
<td>65.7%</td>
<td>Writing on clothes</td>
<td>8</td>
<td>11.4%</td>
</tr>
<tr>
<td>Write on rulers</td>
<td>13</td>
<td>18.6%</td>
<td>Using sign language with friends</td>
<td>7</td>
<td>10%</td>
</tr>
<tr>
<td>Impersonation</td>
<td>19</td>
<td>27.1%</td>
<td>Leaving notes in toilets</td>
<td>14</td>
<td>20%</td>
</tr>
<tr>
<td>Copying someone’s work</td>
<td>20</td>
<td>28.6%</td>
<td>Exchange question papers with answers</td>
<td>13</td>
<td>18.6%</td>
</tr>
<tr>
<td>Exchange booklets</td>
<td>27</td>
<td>38.6%</td>
<td>Notes on registration forms</td>
<td>3</td>
<td>4.2%</td>
</tr>
<tr>
<td>Talking before examination begins</td>
<td>5</td>
<td>7.1%</td>
<td>Taking into exam venue already written scripts</td>
<td>2</td>
<td>2.8%</td>
</tr>
<tr>
<td>Knowing examination before hand</td>
<td>9</td>
<td>12.9%</td>
<td>Write notes on tissue paper</td>
<td>5</td>
<td>7.1%</td>
</tr>
</tbody>
</table>

Appendix 3

Table 3 Factors influencing cheating

<table>
<thead>
<tr>
<th>Factor</th>
<th>(F)</th>
<th>%</th>
<th>Factor</th>
<th>(F)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not prepared</td>
<td>63</td>
<td>90%</td>
<td>Pleasing parents</td>
<td>3</td>
<td>4.2%</td>
</tr>
<tr>
<td>Crowded venues</td>
<td>57</td>
<td>81.4%</td>
<td>Panicking</td>
<td>4</td>
<td>5.7%</td>
</tr>
<tr>
<td>Fear of failing given high fees</td>
<td>47</td>
<td>67.1%</td>
<td>Underestimate security in place</td>
<td>5</td>
<td>7.1%</td>
</tr>
<tr>
<td>Too many modules</td>
<td>41</td>
<td>58.6%</td>
<td>Lack of confidence</td>
<td>7</td>
<td>10%</td>
</tr>
<tr>
<td>Want to pass and graduate/proceed</td>
<td>38</td>
<td>54%</td>
<td>Lack of reading culture</td>
<td>8</td>
<td>11.4%</td>
</tr>
<tr>
<td>Fear of repeating</td>
<td>35</td>
<td>50%</td>
<td>Not attending lectures</td>
<td>11</td>
<td>15.7%</td>
</tr>
<tr>
<td>Want high grades</td>
<td>29</td>
<td>41.4%</td>
<td>Want high marks</td>
<td>14</td>
<td>20%</td>
</tr>
<tr>
<td>Relaxed invigilation</td>
<td>29</td>
<td>41.4%</td>
<td>No cheating penalties</td>
<td>15</td>
<td>21.4%</td>
</tr>
<tr>
<td>Adventure and risk taking</td>
<td>21</td>
<td>30%</td>
<td>Laziness</td>
<td>19</td>
<td>27.1%</td>
</tr>
<tr>
<td>Education system that emphasise results</td>
<td>1</td>
<td>1.4%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Questionnaires
### Appendix 4

#### Table 4 Measures to reduce cheating

<table>
<thead>
<tr>
<th>Institutional measures in place</th>
<th>(F)</th>
<th>Areas of improvement</th>
<th>(F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instruction manuals</td>
<td>39</td>
<td>Deploy more invigilators</td>
<td>40</td>
</tr>
<tr>
<td>Suspension</td>
<td>25</td>
<td>Train staff</td>
<td>34</td>
</tr>
<tr>
<td>Vigilant invigilators</td>
<td>20</td>
<td>Motivate staff handling examinations</td>
<td>30</td>
</tr>
<tr>
<td>Nullifying results</td>
<td>13</td>
<td>Talk to students about cheating</td>
<td>19</td>
</tr>
<tr>
<td>Cheating penalties</td>
<td>11</td>
<td>Compulsory lecture attendance</td>
<td>17</td>
</tr>
<tr>
<td>Verifying IDs on entry into venues</td>
<td>7</td>
<td>Use of CCTV</td>
<td>15</td>
</tr>
<tr>
<td>Adequate sitting space</td>
<td>7</td>
<td>Cut off dates for student registration</td>
<td>14</td>
</tr>
<tr>
<td>Leaving reading material outside venue</td>
<td>5</td>
<td>Tighten penalties</td>
<td>13</td>
</tr>
<tr>
<td>Advice at orientation</td>
<td>5</td>
<td>More Vigilant invigilators</td>
<td>12</td>
</tr>
<tr>
<td>Students escorted to the toilet</td>
<td>3</td>
<td>Publicise offender and penalty</td>
<td>7</td>
</tr>
<tr>
<td>Observe strictness when preparing question papers</td>
<td>2</td>
<td>Give students enough time to read</td>
<td>3</td>
</tr>
<tr>
<td>Automated sitting positions</td>
<td>2</td>
<td>Reduce student-invigilator ratio</td>
<td>2</td>
</tr>
<tr>
<td>Switching of phones</td>
<td>1</td>
<td>Incorporate academic ethics into syllabi</td>
<td>2</td>
</tr>
</tbody>
</table>

Source: Questionnaire responses
Appendix 8

Source: Survey

Figure 3: Suggested Cheating Penalties

Key:
A-Nullification of results
B-Suspension from university
C-Including offence on transcript
D-Expulsion from university
E-Graduating with a lower class
F-Counselling

Key:
1- Not effective at all
2- Not effective
3- Moderately Effective
4- Effective
5- Very Effective