CHAPTER-2

REVIEW OF RELATED LITERATURE

The review of the literature is a comprehensive inclusion of everything known on a given research topic and its related topics or a short summary of the literature most pertinent to the specific topic under study.

John Best, 2008
CHAPTER II

REVIEW OF RELATED LITERATURE

2.0 INTRODUCTION

Effective research is based on past knowledge which helps to eliminate the duplication of what has been done and provides useful hypotheses and helpful suggestions for significant investigation (Best, 2008). Thus, review of literature is a crucial element of all research with a purpose to offer an overview of significant literature published on the topic. It provides the background and justification for the research undertaken. It helps the investigator to identify gaps in the literature about the subject under consideration. It is designed to increase the area of knowledge on the subject and to provide intellectual context for the research. Review of literature is necessary to aim at critical points of knowledge including substantive findings as well as theoretical and methodological contributions to a particular topic.

As one of the popular discussions during examinations remains cheating, the investigator found it necessary to break through the problem of academic cheating. Prior to conducting the research, over hundreds of studies were examined through various sources that recount in detail explanations of who cheats, why and how cheating occurs, how to identify cheaters, which are the factors responsible for leading an individual to indulge in this unethical behaviour etc. In this chapter, an attempt has been made by the investigator to present a brief review of the studies related to academic cheating. In this direction, reviews of the existing published literature about academic dishonesty among students has been taken up under five sections which are as follows:

(i). Studies related to academic cheating.

(ii) Studies related to personality and academic cheating.

(iii) Studies related to study involvement in relation to academic cheating.

(iv) Studies related to socio-economic status and academic cheating.
(v). Studies related to demographic variables (age, gender, GPA, ethnicity, etc.) and academic cheating.

2.1 STUDIES RELATED TO ACADEMIC CHEATING

The literature on cheating among high school and college students has shown that academic cheating is a widespread phenomenon affecting many school levels, academic disciplines and countries. (Brimble & Stevenson-Clarke, 2005; Christenson and McCabe, 2006; Genereux and Mcleod 1995; Magnus, Polterovich, Danilov & Savvateev, 2002; Newstead, Franklyn-stokes and Armstead, 1996; Kisamore, Stone and Jawahar, 2008). The majority of students have engaged in it to some degree at some point in their academic careers (Baird, 1980; Davis, Grover, Becker & McGregor, 1992; Eskridge and Ames, 1993). Documented since at least the 1920s (e.g. Brownell, 1928) and an ongoing concern for the past 90 years (McCabe and Bowers, 1994; McCabe & Trevino, 1996, Spiller and Crown, 1995), research on the subject has intensified during the last three decades (Diekhoff, LaBeff, Clark, Williams, Francis and Haines, 1996; Lambert, Hogan, Barton, 2003).

In 1941, Drake found that 23% of students reported cheating. In 1964, Hetherington and Feldman reported a cheating rate of 64% and Baird (1980) documented 76% cheating rate in 1980. While Jendrek (1989) estimated cheating rates between 40 and 60%, Smyth and Davis (2004) found that 74% college students had observed cheating. In 2005, McCabe reported levels of cheating between 47 and 71% (cited in Kiramore, Stone, Jawahar, 2008). From the review of literature on prevalence of academic cheating, the investigator found that academic cheating is growing at an alarming rate. The rise of academic cheating began some time ago and may be growing substantially (Drake, 1941; Hetherington & Feldman, 1964; Baird, 1980; Jendrek, 1989; Whitley, 1998; Symth & Davis, 2004; McCabe, 2005). The rate and consistency of academic misconduct over the years, however is a subject to debate due to different operationalizations of misconduct as well as differences in methods used to detect and document academic misconduct (Crown and Spiller, 1998; Passow, Mayhew, Finelli, Harding and Carpenter, 2006; Kisamore, Stone, Jawahar, 2008). Depending on the type
of survey used, reported percentage of undergraduate and graduate students who admitted to having cheated has ranged from 9% to as high as 91% (Davis, Grover, Becker and McGregor, 1992; Sims, 1995; Genereux and McLeod, 1995; Maramark and Maline, 1993; Mecum, 2006; McCabe and Trevino 1996; Tibbetts 1998, 1999; Smith 2005).

Brown and Emmett (2001) concluded from a meta-analysis of 33 studies that the incidence of academic misconduct is significantly positively related to the number of misconduct practices included in a study. An important issue for teachers in schools is student cheating in various forms, i.e. on assignments and examinations, in order to gain better marks and grades. The importance of this issue has increased in recent years because of the increase in the proportion of marks given to assignments type assessments in many countries. The results on academic cheating has been published in many papers mostly with data collected from United States, on students cheating to gain better marks and grades. It created the impression that cheating is widespread and relatively well accepted amongst students (Jendrek, 1992; Meade, 1992; Schab, 1991; Evans and Craig, 1990; Boyer 1989; Deutsch, 1988; Haines, Diekhoff, La Beff and Clark, 1986; Bushway and Nash, 1977; Godfrey 1993). Most of the research work has predominantly examined either individual factors (e.g. gender, age, grade point average, education, personality) or situational factors (e.g. honor codes, surveillance, rewards/sanctions, peer context, fraternity or sorority membership, campus housing) as predictors of academic dishonesty (Kisamore, Stone, Jawahar, 2008). However, a brief review of the studies related to academic cheating is given as under:

**Bowers (1966)** conducted one of the foremost studies regarding cheating on college campuses. His research surveyed over five thousand college students from almost one hundred campuses across the United States. The study revealed that about half of those surveyed engaged in one or more forms of cheating behaviour. Furthermore, half of those who admitted to have done cheating also indicated that they had engaged in more than one form of cheating (i.e. plagiarism and cheating on an exam). The results also indicate that the majority of these students were never caught, and that they perceived punishments for academic misconduct as lenient.
McCabe (1992) examined the influence of situational ethics on cheating among college students. The analysis of responses from 6,096 students at 31 diverse schools suggested that neutralization is a significant factor in justifying the violation of institutional norms on academic honesty. Although cheating is generally seen as wrong, students identify many situations in which they feel cheating is acceptable. Students used a variety of neutralization techniques (e.g. rationalization, denial, deflecting blame to others, condemning the accusers) to explain away their dishonest behaviour.

Evans, Craig and Mietzel (1993) studied cheating perceptions of urban secondary school students in West Germany, the United States and Costa Rica. It was found that German students showed strong differences in cheating perceptions from both United States and Costa Rican students. The differences occurred in cheating problem perceptions, critical attributes of cheating, causal factors in cheating and beliefs about effective ways to control cheating, although there were some similarities across all three countries. The differences in results between countries were interpreted as due to differences in competitive and co-operative reward structures in the education systems. The German system placed greater emphasis on co-operation to achieve rather than personal effort to achieve as in the United States system.

Godfrey (1993) extended Evans et al (1993) study by increasing the sample from three to six countries; by increasing the sample from 322 to 1068 students; and by using a measurement model to create a common scale of attitude statements about perceptions of cheating among students in all six countries. This was expected to provide a better method of comparing any differences in perceptions between countries due to cultural and national effects. The literature on student perceptions of cheating by researchers in the United States has focused on up to four aspects of student attitudes towards cheating such as what constitutes cheating, why and how cheating occurs, the characteristics of cheaters and how cheating can be discouraged. Further, students believe that there are certain situations in which cheating is more likely to occur; students weighed up the pressures to achieve and the benefits of cheating undetected in particular situations and linked their experiences and knowledge to form their beliefs about whether cheating is a serious problem. Cheating is more likely to occur in classes: (i) where the reasons for
learning are unclear and where large amounts of subject matter are covered than in classes where the reasons for learning are made clear and where there is sufficient class time to cover the subject matter; (ii) with teachers who are disorganized, take no steps to prevent cheating, are hard to understand and are dull or boring than with teachers who exhibit the opposite traits; (iii) with students who are afraid of failure, have friends who cheat, miss school, are angry with their teachers and whose parents pressure them to achieve at a high level than with students who exhibit the opposite characteristics.

It is expected that students can be discouraged from cheating, to different extents, by schools and teachers implementing particular policies in relation to examinations and assignments. For example, cheating can be discouraged in examinations by strict administration, proper seating arrangements, enforcing cheating penalties and by vigilant supervision. Cheating can be discouraged in assignments by explaining reasons for not cheating, explaining and enforcing cheating penalties and working more closely with students. It is also expected that cheating would be more likely to occur where students view cheating as a minor problem because the education system encourages co-operative learning that blurs the distinction between plagiarism and one’s own work; where students feel that cheaters are hardly ever caught or punished; where adults and teachers cheat; and where they feel they cannot report cheating without fear of victimization.

Traditionally, in measuring student perceptions of cheating, researchers developed one-dimensional measures which were usually at the ordinal level of measurement. This was in the form of percentages or ranked data. In the present study, the model of student perceptions of cheating utilized a multi-dimensional approach to the measurement of perceptions of cheating at an interval level of measurement. This model of student perceptions of cheating means that one can collect data on perceptions of cheating using items from the four dimensions - namely, perceptions of cheating as a problem, perceptions of what constitutes cheating, perceptions of the characteristics of teachers, classes and students where cheating is likely to occur, and perceptions of methods of discouraging cheating - and construct a scale in which items from all four dimensions are ordered along with it.
McCabe and Trevino (1993) suggested that honor codes may lead to lower the levels of academic dishonesty because they clarify expectations and definitions of cheating behaviour. Therefore it may be more difficult to rationalize and justify cheating because there are fewer grey areas. The study proposed that moral norms are more likely to be activated and influence behaviour under honor codes, because in honor code environments students are given responsibility for detecting violators, determining guilt, and assigning penalties. It was argued that students may abide by honor codes because they are motivated to preserve valued privileges, such as unproctored exams. Although the survey data confirmed the positive relationship between honor codes and academic integrity, yet the data could not confirm the reasons for the relationship. Further, one of the lowest levels of cheating occurred at a school that lacked an honor code because administrators communicated their expectations regarding high standards of integrity and encouraged students to abide by rules of proper conduct. On the other hand one of the higher levels of cheating occurred at a school that had a long-standing honor code but the administrator failed to adequately communicate the essence of its code to students. This finding led to an important insight that it is not the mere existence of an honor code that is important in deterring college cheating; a truly effective code must be well implemented and strongly embedded in the student culture.

Innerst (1995) asserted that a small percentage of students will consistently try to cheat, and a small percentage of students would never think of cheating. This leaves a large group of students in the middle who could go either way; the culture of the campus can help sway their decisions. The majority of students will choose not to cheat because of the guilty feeling they would experience, not because of the fear of being caught. Studies on cheating show that, although cheating is on the rise overall, schools that have honor codes experience less cheating.

Diekhoff et al. (1996) surveyed 474 university students to (i) evaluate the extent of cheating; (ii) assess attitudes towards cheating; (iii) identify variables that discriminate between cheaters and noncheaters; (iv) assess the relative effectiveness of various deterrents to cheating; and (v) examine changes in cheating attitudes and behaviour from 1984 to 1994. Cheating trend increased during these years of the study. Students who
cheated were less likely to neutralize (rationalize) their cheating in later years than the students who reported cheating in early years of the study. As compared to noncheaters, cheaters were (i) less mature (ii) less reactive to observed cheating; (iii) less deterred by social stigma and guilt, and more likely to neutralize (iv) less personally invested in their education and (v) more likely to be receiving scholarships; but doing less well in school. Both cheaters and noncheaters rated embarrassment and fear of punishment as the strongest deterrents to cheating. Disapproval of one’s friends was ranked as the least effective deterrents by both groups.

Godfrey and Waugh (1997) were of the opinion that educators took on assessment in general and examinations in particular. These arrangements had made it easier for students to use dishonest practices in order to gain better grades. Copying from books and assignments set in previous years, collusion amongst students in preparing assignments, getting help from relatives; using illegal notes in tests; and copying during classroom tests are some examples of school assessment dishonesty. Students blamed teachers for making cheating necessary because sometimes teachers are unavailable to help students, or being unfriendly, or boring or performing poor invigilation. So cheating was perceived to be a teacher’s responsibility rather than a student’s responsibility. The findings of this study have wide reaching implications for moral theory that an appeal to a moral code will have little effect in preventing cheating.

McCabe and Trevino (1997) surveyed almost 1800 students at nine medium to large size universities in the 1993-1994 academic year. In this comprehensive investigation of the influences of individual and contextual factors on self-reported academic dishonesty, results suggested that cheating was influenced by a number of characteristics of individuals including age, gender, and grade-point average, as well as a number of contextual factors including the level of cheating among peers, peer disapproval of cheating, fraternity/sorority membership, and the perceived severity of penalties for cheating. Primacy of the institutional context in influencing cheating behavior was also pointed out. The contextual factors were significantly more influential than the individual factors with peer disapproval as the strongest influential factor. It was also found in this study that cheating tends to be more prevalent on the large campuses. Several other
individual level variables were also examined. Students with lower GPAs reported more cheating than students with higher GPAs.

**Godfrey and Waugh (1998)** studied literature on academic dishonesty and found that cheating is practiced by most of the students at all levels of schooling. The incidence of cheating in school varied from 40% in the upper primary years of schooling to nearly 80% in the later years of secondary school. Students studying in religious schools also had knowledge about cheating and had involvement in less serious cheating practices. Secondary pupils had engaged themselves in most of the types of cheating behaviour at least once in their schooling.

**Josephson (1998)** studied school students polling during 29th Who’s Who among American High School Students Poll and declared that 80% of the country’s best students cheated to get to the top of their class and more than half of the students surveyed said that they did not think cheating is a big deal. 95% of the cheaters said that they were not caught and 67% copied someone else’s home work.

**Brown (1999)** reported that students were much more likely to be academically dishonest in home assignments than in-class exams and the participants who received a questionnaire on a one-on-one situation tended to appear more academically honest than those who received questionnaires in group. Nearly three quarters of the students were willing to cheat in a situation where they had pressure to finish an assignments in fixed time for a major grade.

**Educational Testing Service (1999)** published the compelling results of a survey which revealed that it is not just the struggling students who are involved in cheating rather above average college bound students also cheat. Cheating is more prevalent and accepted. Collaborative academic environments like the Internet are making the definition of cheating even murkier. Students considered cheating as a victimless crime. High school students are less likely than younger test takers to report cheaters because it would be “ratting out a friend”. Influence of pressure by parents and educators to show better results aggravated the problem of cheating.
**Eissens and Stanislaus (1999)** conducted a study to discover what particular methods of cheating are most common on college campuses and found that copying someone else’s paper, plagiarizing parts or all of a paper, using unauthorized information services on a take-home exam, and getting an answer from someone else’s paper during a test are most common kinds of cheating. The results also indicated that cheating in papers was more common than cheating in exams. The honor code violation occurred mainly outside and not inside the classroom.

**McCabe, Trevino and Butterfield (1999)** suggested that cheating behaviour can be effectively managed in the classroom. Insights from this qualitative study suggested that faculty members can pursue numerous strategies which include communicating expectations regarding cheating behaviour clearly, establishing policies regarding appropriate conduct and encouraging students to abide by those policies, being supportive in dealing with students, reducing pressure on students, providing harsh penalties to cheaters, developing fair and consistent grading policies, and removing opportunities to cheat. The study emphasized implementation of code of conduct because code students sense that they are part of a special community that demands compliance with certain standards in exchange for the many privileges associated with honor codes. Such privileges (e.g. unproctored exams, self-scheduled exams, the strong judicial role played by students, etc.) help create a true environment of trust among students and between students and faculty. The study also identified other factors that can influence cheating, including pressure to get high grades, parental pressure, a desire to excel, pressure to get a job, laziness, a lack of responsibility, a lack of character, poor self-image, a lack of pride in a job well done, and a lack of personal integrity.

**Lupton, Chapman and Weiss (2000)** discussed business students’ attitudes, perceptions, and tendencies toward academic dishonesty. The study explored that student cheating presents two obvious problems at the institutional level. Firstly, it threatens the equity and efficacy of instructional measurement, so that students’ relative abilities are not accurately evaluated; and secondly, students who cheat probably reduce their level of learning so they are less prepared for advanced study or application of the material presented in a course. At the broader, societal level, it is likely that students who do not
respect academic integrity while at university will not respect integrity in their future professional and personal relationships.

Newberger (2003) concluded that when learning is most highly valued, there is little incentive to cheat. When grades matter most, cheating rises. Grading pressure is generated by the culture and personified by many parents. Collaborative academic cheating is, in its way, an odd expression of altruism among adolescents at the same time it is a deceitful breaking of rules.

Dick, Sheard and Markham (2001) found that there is a relative paucity of published Australian research into academic dishonesty at the tertiary level. A survey of Computing and Information Technology postgraduate students, carried out by academics at Monash University, sought students’ views on the acceptability of a variety of scenarios involving cheating, as well as their knowledge of the occurrence of these scenarios. It was found that students were fairly homogeneous in their views of what constituted acceptable (for example, resubmitting an assignment from a previous subject in a different subject) and unacceptable practice for example, exam cheating, but that their views did not necessarily correspond with University policy on what is acceptable. Further, it was found that for seven of the sixteen ‘dishonest’ scenarios presented to students, at least ten per cent of students admitted having engaged in such behaviour; while the proportion of students claiming to personally know someone else who practiced such behaviour was at least ten per cent for fourteen of the sixteen scenarios.

McCabe, Trevino and Butterfield (2001) reviewed one decade of research on cheating in academic institutions. This research demonstrated that cheating is prevalent. Between 1960s and 1990 most of the research on student cheating focused on the role of individual factors related to cheating behaviour. This stream of research revealed that factors such as gender, GPA, work ethic, Type A behavior, competitive achievement striving, and self-esteem can significantly influence the prevalence of cheating. Some forms of cheating e.g. test and exam cheating have increased dramatically in the last 30 years. This research also suggested that although both individual and contextual factors influence cheating, but contextual factors, such as students’ perceptions of peers’ behaviour, are the most
powerful influence. In addition, an institution’s academic integrity programs and policies, such as honor codes, can have a significant influence on students’ behavior. Surveys of high school students suggested that most students who had seen their peers cheating consider college differently where true learning occurs. However, if they observe cheating by senior students and see faculty members ignoring it, their idealistic view is likely to degenerate. Further, honor codes are not a panacea and will not work on every campus. Thus, it is important to think about strategies that can be employed on any campus in dialogue. Each campus must send a consistent message to its students that academic integrity is expected and that cheating will result in negative consequences.

Paulhus (2002) asserted that social desirability is the “tendency to give overtly positive self-descriptions”. The study highlighted his use of the term ‘overtly’ and emphasized the importance that socially desirable responses are a departure from reality. Given the taboo nature of academic dishonesty and cheating, it is possible that some students may deny minimize their participations in such activities, even in anonymous testing conditions. A students’ denial or minimization can create response bias. Response biases are a “systematic tendency to answer questionnaire items on some basis that interferes with the accurate self-reports. Self-report data, especially regarding unethical practices, may result in minimized responses.

Sheard, Dick, Martin, Macdonald and Walsh (2002) conducted a survey similar to Dick et al (2001) of undergraduate students studying either Computer Science and Software Engineering at Monash University or Information Technology at Swinburne University. The results were broadly in agreement with those of the previous study. That is, there was strong agreement among students about the unacceptability of the more serious forms of cheating (such as exam cheating, submitting an assignment written by someone else); yet nine of the sixteen scenarios had been personally practiced by at least ten per cent of the surveyed students, while for fifteen of the sixteen scenarios the proportion of students claiming to personally know someone who had practiced such behaviour was at least ten per cent. Interestingly, significant variations in cheating practices were observed between the two universities, which the authors suggested might have been influenced by differing modes of assessment adopted by the two universities.
Approximately 80 per cent of students at both universities indicated they would do nothing if they observe a student cheating in an exam or assignment.

**Taylor et al. (2002)** studied the cheating behaviour of elite high school students through interview responses from students who were considered to be in the top 10% of their class. Students reported their involvement in academic dishonesty and tried to justify their dishonest behaviour giving reasons like pressure from competition for class rank, parental pressure. It was also examined that high aptitude students and the pressure to succeed are related to academic dishonesty. The pressure, high achievers experience in highly competitive environments, was a primary reason many of the students stated for engaging in dishonest academic behaviours.

**Moeck (2002)** defined and identified attitudes and situations that encouraged academic dishonesty. The study further discussed strategies for prevention of academic dishonesty, offered suggestion on how to discourage the practice, and proposed recommendations for dealing with cheating. The percentages of students who cheat can vary from 40-90%. Cheating can exist in the form of plagiarism, claiming credit for others’ work, abuse of academic materials by destroying or altering portions of content, damaging or stealing library materials to prevent others having access to information, install a computer virus to sabotage software programs, or exercise complicity in aiding and abetting others to cheat. Some of the reasons why students cheat are-they think that anything on the Internet is public domain. Many students attend college to acquire a credential, not education. Some think they will not get caught and play the odds. Others enjoy the adrenaline rush of successfully breaking the rules. With tremendous pressure and competition for grades, some will cheat or plagiarize to maintain a high GPA which can also achieve another honor society membership, transfer scholarships and higher self-esteem. Community college faculty members are reluctant to report cheating because they do not want to be bothered because they think only the students who cheated are actually harmed or because of the unpleasant bureaucracy and documentation ramifications.

**Harding et al. (2003)** studied relationship between academic dishonesty and professional behaviour. The primary finding in this work is that there does not appear to be a
quantitative correlation between the decision to cheat in a specific situation in college and decision to violate workplace policies in a specific situation. The relationship between cheating in college and unethical behavior in professional practice may not be straightforward or simple.

Lambert et al. (2003) examined potential correlates of twenty different types of academic cheating by surveying 850 students at a four-year Midwestern University. Firstly, it was found that the prevalence of academic dishonesty is significantly influenced by how it is measured. Academic cheating encompasses a wide range of behaviors that clearly cannot be assessed with a single measure. Therefore, when a summated measure based upon a wide range of cheating behaviors is used, then cheating is both frequent and prevalent. Secondly, out of nine personal characteristics (Gender, Race/Ethnicity, GPA, Age, College level, Fraternity/Sorority, Marital Status, Employed, Play Varsity Sports) only two personal variables i.e. (i) College level (ii) Fraternity/Sorority membership - had significant relationship in multivariate analysis. It implies that personal characteristics are proxy measures for other reasons for cheating.

Alam (2004) studied whether plagiarism is more prevalent in some forms of assessment than others. The rank order shows majority of the students admitted to cheating in programming assignments, ahead of essay type assignments. Third rank goes to analysis and design assignments and final rank is given to group projects and laboratory work.

Bolin (2004) attempted to examine academic dishonesty within the broader context of deviant behavior and delinquency. Using self-report data and path analysis techniques, Bolin observed that cheating behavior is well explained by Gottfredson and Hirschi’s (1990) general theory of crime (which posits that the major causes of all deviant behavior are lack of self-control, perceived opportunity and the interaction between them), with the addition of the variable ‘attitude toward academic dishonesty’. This variable, which was constructed to measure students’ moral evaluations of cheating, explained nearly 40 per cent of the variation in academic dishonesty by US psychology students. This study was not the first to observe an association between academic dishonesty and students’ attitudes toward dishonesty. Nevertheless, it is noteworthy
because it places academic dishonesty within the context of an empirically supported theory with the potential to explain and predict such behaviour, and ultimately permit the development of intervention strategies. In this regard, Bolin argued: because attitudes are less enduring than personality traits such as self control (which is shaped in childhood), and requires less frequent intervention than the eternal vigilance needed to reduce opportunity (to cheat), intervention aimed toward influencing student attitudes toward dishonesty (for example, education or honor codes) would seem to have a higher likelihood of success at a much lower cost.

**Jacob and Levitt (2004)** studied prevalence of cheating by teachers and administrators in matter of altering students answer sheets, giving students the answers or obtaining copies of exam before the test date and literally teaching the test. The study found that with the implementation of the No Child Left Behind Act, cheating by school personnel increased following the introduction of high-stakes testing, particularly in the lowest-performing classrooms. The classrooms that performed poorly the previous year were much more likely to cheat. Teachers who administered the exam to their own students were approximately 50 percent more likely to cheat. Classrooms in schools with teachers who graduated from more prestigious institutions were also less likely to cheat. However, classrooms in schools with younger teachers were more likely cheat. The results of the study showed that explicit cheating by school personnel is not likely to be a serious enough problem by itself to call into question high-stakes testing, both because the most egregious forms of cheating are relatively rare and cheating could be virtually eliminated at a relatively low cost through the implementation of proper safe guards.

**Lawson (2004)** observed that NY business students generally have a good understanding of what constitutes ethical behaviour in the business world and the need for such behaviour, but students also believe that business people sometimes need to act unethically to advance their careers. A very strong relationship between students’ propensity to engage in unethical behaviour in an academic setting and their attitude toward such behaviour in the business world was found. Students who cheated in examinations or plagiarized assignments were found to be less likely to believe that people in the business world act ethically, and more accepting of the need for unethical
behaviour in business, than those who did not engage in academic dishonesty. Findings such as those of Lawson (2004) and Grimes (2004) suggest that increasing levels of student dishonesty may be reflective of the value systems being internalized by today’s young people exposed to an almost daily media litany of fraud, bribery, insider trading and other forms of unethical behaviour in the ‘real world’. The fear, then, is that cheating will become (has already become?) normative behaviour for today’s students who are arguably under more pressure than ever before to achieve high grades in order to secure scholarships or well-paid employment. Thus, it becomes increasingly important that university administrators understand the factors that cause and maintain cheating behaviour, in order to be in a better position to promote and engender ethical attitudes and behaviours among students.

Brimble et al. (2005) reported on surveys of both, students and academic staff, of four major Queensland universities in relation to academic misconduct about their perceptions of the relative seriousness of various forms of academic misconduct, what penalties are appropriate for such misconduct and the reasons provided by students/to staff for entering into such conduct, about the prevalence of such conduct in terms of actual personal experience and perceptions with respect to the student population. Compared to academic staff, students were found to exhibit a higher tolerance for the various forms of academic misconduct addressed in the survey, as evidenced by their lower perceptions of the seriousness of the misconduct, together with lower recommended penalties. With respect to plagiarism, the findings supported the prior literature and, importantly, the concerns of academics in terms of student attitudes toward plagiarism and the ramifications for the assessment process and students’ learning outcomes. Further, students appeared relatively well informed with respect to the prevalence of dishonest practices among their peers, staff tended to be somewhat naïve in this regard, sometimes underestimating the prevalence of student dishonesty by a factor of four or more. Finally, the study found that students engaged in academic misconduct for more deliberate and self-interested motives than they led academics to believe.

Brown (2005) investigated academic dishonesty among business students at public and private universities in U.S. and found that academic dishonesty occurs at alarmingly high
rates on the nation’s campuses. Furthermore, there is evidence that rates have tended to increase over time. While the relationship between time and the reported level of dishonesty is not perfect, the general trend has been upward.

**Kalia, A.K. (2005)** studied the influence of gender on knowledge, perceptions, tendencies and beliefs towards cheating. Cheating is believed to be of two types i.e. active cheating done to improve ones’ own grade and passive cheating done to assist another student in improving his grade. Female students have more knowledge about cheating and have high tendencies of cheating than their male counterparts. But for preparing home assignments/project work, male students have high percentage of cheating than female students.

**Singh et al. (2005)** evaluated undergraduate students on academic dishonesty and evaluated their sense of personal responsibility. The Academic Dishonesty Questionnaire asked questions concerning exams, plagiarism, and receiving information about exams ahead of time. The Student Personal Responsibility Scale-10 was used to gauge the sense of responsibility that students felt in certain hypothetical situations. There was a negative correlation between student self-reported academic dishonesty attitudes and a sense of personal responsibility, with the students displaying the highest sense of personal responsibility having the lowest academic dishonesty scores and vice versa. Approximately 50% of students admitted cheating while 71% of professors thought the level was 30% or less.

**Hutton (2006)** reviewed the observed evidence on college student cheating and placed it in a context that combines economic theories of benefit/cost analysis and unobservable behavior with social network analysis of how widespread rule breaking can develop in an organization. The implications are that students cheat because the benefit/cost tradeoff favors cheating; that the problem of unobservable behavior can be greatly mitigated by promoting academic integrity as the social norm; and that many factors that have contributed to the development of more and stronger relationships between college students have helped to promote cheating. It is suggested that faculty attitudes, behavior, and actions can play a significant role in reducing the incidence of academic dishonesty.
by reducing opportunities to cheat and increasing the probability of being caught through greater vigilance; overcoming hesitancy to report cheaters, and establishing and promoting academic integrity as the social norm among students through relationships with students which, in turn, provide support for students who disapprove of cheating.

Passow et al. (2006) studied factors influencing engineering students’ decisions to cheat by type of assessment. This study, based on a survey on 643 undergraduate at 11 institutions, predicted the frequency of cheating on exams and the frequency of cheating on homework on eight blocks of independent variables. The findings suggested that students don’t see cheating as a single construct and their decision to cheat or not to cheat are influenced differently depending on the type of assessment. Further, students conviction that cheating is wrong in all circumstances is a strong deterrent to cheating across types of assessment. A student who agrees to cheat in order to alleviate stressful situations is more likely to cheat on both exams and homework.

Harding et al. (2007) presented a report that cheating in both high school and college has been commonplace for decades and that cheating in a rational behaviour that is under the complete control of the individual. The research found that moral obligation, attitude toward cheating and subjective norms are the three dominant factors that influence an individual’s intention to cheat.

Hughes et al. (2007) explored the reasons as to why learners used crib notes and why it is socially acceptable for them to do so. Learners cheat in examinations because they have to study too many compulsory subjects and having too many exams to prepare. Further poor invigilation during examinations and inconsistent grading practices are also seen as reasons to cheat in examinations.

Frei et al. (2007) found that both academic dishonesty and faking are significantly correlated with integrity. The relationship between academic dishonesty and faking is significant for agreeableness and conscientiousness. Interestingly, faking on the extraversion was related to neither academic dishonesty nor integrity. That leaves open the possibility that people who are lower in integrity or higher in academic dishonesty fake less on scales of extraversion because they are already high on that trait. Individuals
who are low in integrity are more likely to be impulsive, spontaneous, and emotional. Research has shown that fakers were more academically dishonest than non-fakers. Thus non-fakers on extraversion subscale were less academically dishonest.

Mouberry-Sieman (2007) gained insight from longitudinal analysis conducted in three phases on how students attitudes and behaviours change over time and across educational settings. The study examined the issue of academic dishonesty across the transition from high school to college and found that some of the students included in the study changed their perceptions, attitude and behaviour related to academic dishonesty as they made transition from high school to college.

Pugliese (2007) studied infraction of academic integrity and found that technology played a critical role in higher education in the 20th century as incidences of infractions related to academic integrity and student behaviour are affected by technology. The study attempted to assess the effect of technology and its pervasiveness on student behaviours related to academic integrity and codes of student conduct. It revealed that private institutions of higher education are educating students on academic integrity and responsible use of technology. However, Chief Academic officers and Chief Students Affairs Officer reported infractions. Behaviours like file tempering, Plagiarism, Cheating, Computer hacking, Harassment, Forgery, Theft of software and hardware were found significant. Newer technologies, cellular telephones and personal digital assistants were significant with regards to their influence on infractions of academic integrity and a code of student conduct.

Stephens (2007) provided a comparative analysis of students’ beliefs and behaviours related to six analogous pairs of conventional and digital forms of academic cheating. Result suggested that students used conventional means more often than digital means to copy homework, collaborate when it is not permitted and copy from others during an exam. Students reported using digital ‘cheat sheets’ (digital device) more often than conventional ‘cheat sheets’. Overall, 32% of students reported no cheating of any kind, 18.2% reported using only conventional methods, 4.2% reported using only digital methods, and 45.6% reported using both conventional and digital methods to cheat.
Students in both groups also had the lowest sense of moral responsibility to refrain from cheating and the greatest tendency to neutralize that responsibility.

**Gallant (2008)** studied about academic integrity in 21st century and found that through the evolution in American higher education, academic integrity and dishonesty have existed. Cheating behaviours such as using crib notes arose out of the adversarial relationship between students and their educators.

### 2.2 STUDIES RELATED TO PERSONALITY AND ACADEMIC CHEATING

Review of literature on academic dishonesty leads to shocking statistics and provides an idea about the problem of cheating. In an effort to understand the design underlying the decision to cheat, researchers have identified a variety of factors that seem to be correlated with academic cheating. However, identifying the behavioural characteristics of students who cheat can have influence on the ways in which cheating is detected and curbed in classrooms. Reviews of studies such as given below provide insight into students’ personality traits related to academic cheating.

**Kelly and Worrell (1978)** studied personality characteristics, parent behaviours and gender in relation to cheating. They found that in order to earn course credit female college students who were high in impulsivity were more likely to cheat than female students who were lower in impulsivity.

**Sackett and Wanek (1996)** reviewed the relationship between personality and integrity measure. Evidence from meta-analysis suggested that integrity tests are related to conscientiousness, agreeableness and neuroticism dimensions of personality. However, the relationship between conscientiousness with integrity was almost zero when conscientiousness-performance relationship was accounted for. Further, students with high lie scale scores or students with high impression management scores depicted high score on integrity tests.

**Thorpe et al. (1999)** surveyed 310 students of high schools and colleges to find various forms of academic dishonesty and measured three personality characteristics i.e. self-esteem, locus of control and social desirability. The data presented that cheating of
various forms is a prevalent behaviour among college students. Students reported cheating more while in high school than in college. It indicates that cheating is not a behaviour students acquire in college. Students perceive cheating during an exam to be a more egregious infraction than plagiarizing or copying homework assignments. Consequently, students reported higher rates of plagiarizing and copying homework than cheating on exams. When all cheating behaviours were combined into a single index, men were found reporting more cheating than women. When the individual forms of cheating were examined, however the only difference that remained existed was for plagiarizing in papers. Further, more students from the larger school reported cheating on exams than students at the smaller institutions. The rate of cheating on tests is much higher at the larger institution, but the rates of copying homework and plagiarizing are equivalent.

**Jackson et al. (2002)** investigated 107 students from a variety of academic disciplines to establish how personality, demographic, educational, attitudinal, and climate (both psychological and departmental) predicted self-reported cheating behaviour at a university. The results explained 50.05% of the variability in self-reported cheating behaviour in terms of demographic (male, school education qualifications), departmental climate and individual differences (Lie and Neuroticism scales). The results also substantially supported the view that demographic (gender and school education qualifications), individual differences (neuroticism and a low lie score) and departmental climate are significant predictors of dishonesty at university level. Men admitted to cheating more than did women. Higher school educational qualifications resulted in lower levels of self-reported cheating, suggesting that those who cheat are less likely to succeed at school. High neuroticism predicted cheating. Psychoticism was also significantly correlated with cheating behaviour. In contrast to some previous researches in education (Bushway and Nash, 1977), no evidence of relation between extraversion and cheating behaviour was found. The lie scale was found a significant correlate and predictor of self-reported cheating. Students with low lie scale score were found more likely to cheat. A relaxed psychological climate and departmental climate were correlated with cheating. Cheaters have less knowledge of departmental rules than do non-cheaters.
Cheaters prefer to remain unaware of the rules regarding their behaviour so as not to define it as cheating.

**Anderman, Cupp and Lane (2006)** studied impulsivity in relation to academic cheating among students in high school health classrooms. The study indicated positive relation between academic cheating and both impulsive decision making and sensation seeking. High impulsive decision making students were more involved in academic cheating. Also high sensation seeking students were engaged in cheating more than their counterparts.

**Etter et al. (2006)** conducted surveys on 439 students at two institutions about their attitudes and unethical uses of information technology. Students at a private church affiliated college rated cheating behaviours as more offensive than their counterparts at a regional campus of a major research university. However, ordinal rankings of academic dishonest behaviours at both institutions were surprisingly similar. Students who rated academically dishonest behaviours as being more serious, typically valued idealism, the ethical principle of doing no harm to others, and disapproval of high sensation seeking activities. The result of these surveys provided considerable evidence that both idealism and disinhibition are consistent correlates of attitudes about students using information technology dishonestly in an academic setting. By contrast, the number of correlations exhibited by the relativism and the thrill and adventure seeking scales were surprisingly few. However, new correlates were established. Such as the relationship between the personality measure disinhibition and unethical behaviours. Overall personality factors and ethical principles were similarly associated with both traditional forms of cheating and the technologically assisted form of cheating.

**Nathanson et al. (2006)** examined predictors of a behavioural measure of scholastic cheating by surveying 291 participants in Study I and 150 participants in Study II. Results suggested that there were no significant differences in cheating between the sexes, ethnicities and majors. The members of the Dark Triad (narcissism, Machiavellianism, and sub clinical psychopathy) emerged as the best personality predictors of cheating. However, sub clinical psychopathy was the strongest among these three members of the Dark Triad. Poorer scholastic competence (e.g. ability, knowledge,
and preparation) among sub clinical psychopaths suggests an alternative explanation for their higher cheating rates. Whitley and Keith-Spiegel (2002) were pessimistic about any link between cognitive ability and cheating but Cizek (1999) concluded that there is a negative association. Paulhus, Nathanson, and Williams (2005) conducted 13 studies and in every case, cheating rates were higher in students with lower cognitive ability. Students who are deficit in scholastic competence have more motivation to cheat. Students with low verbal ability would be doubly motivated to use cheating to compensate. Conscientious students tend to be better prepared and therefore have less need to cheat. Except conscientiousness, the other Big Five personality traits (Extraversion, Agreeableness, Emotional Stability and Openness to experience) have failed to show significant association with cheating. Even conscientious students showed marginal significance on cheating.

**Bruin and Rudnick (2007)** examined the relationship of the personality traits of conscientiousness and excitement seeking with self reported frequency of premeditated cheating in tests among 683 university students. The results of discriminant function analysis supported significant negative relationship between academic dishonesty and conscientiousness and significant positive relationship between academic dishonesty and excitement seeking. The study affirmed that students low on conscientiousness are more likely to procrastinate on academic tasks and put less efforts in preparing tests than students who are high in conscientiousness. Low conscientiousness in students lead to poor preparation for tests and students get increased pressure to show better performance which make them less concerned about rules and then cheating might be considered as alternate to their problem. The students higher on excitement seeking, rated the risks involved in cheating as low which made them vulnerable to cheating. Hence, the combination of low conscientiousness and high excitement seeking can be regarded as a risk factor in academic dishonesty.

**Miller et al. (2007)** are of the opinion that when individuals have a high need for sensation, they need to experience novel, exciting experiences and sensation or impulsivity. Individuals who are highly impulsive tend to act without thinking and get engaged in risky behaviour, particularly among adolescents. In the personality
psychology literature, impulsivity is categorized as part of Neuroticism where as sensation seeking is part of extraversion–introversion. There is reason to believe that individuals who are high in need for sensation (Extroverts) or in impulsivity (Neurotics) would be more likely to cheat. From the perspective of impulsivity, when an individual makes decisions on the basis of impulse rather than reason, that individual may be more tempted to cheat. And individuals who are high in need for sensation are also more likely to cheat because of the risky nature of cheating. Such individuals may experience reinforcement from the “rush” associated with getting away with cheating on an academic examinations or assignments. Self-control construct is closely related to the impulsivity construct. Self-control and perceived opportunity were related to cheating behaviours. Other personality traits which have also been linked to cheating include personality type and locus of control. In an experimental study, college students with a Type A personality who are easily aroused, competitive and aggressive individuals were found engaged in cheating more than students of Type- B personality who are more easygoing and creative.

Karim, Zamzuri and Nor (2009) studied the relationship between unethical internet variable (i.e. misuse, plagiarism, fraudulence, and falsification) and big five personality factors. The research revealed significant results that individuals with high levels of agreeableness were less likely to engage in fraudulent behaviour, plagiarism, and misuse. They also found that students who have higher scores of neuroticism were more likely to engage in plagiarism. Need for further research in this direction has also been acknowledged in this study.

Gallagher (2010) examined academic integrity and personality on 210 participants from psychology classes at California State University. The study found that 86% of participants admitted to cheating at least once within the past year. This percentage is high keeping in view that cheating behaviours are often under-reported by students. Academic Dishonesty was found related to many of the personality variables. Those who reported higher levels of Academic Dishonesty also had higher levels of neuroticism and openness. However, Academic Dishonesty and social desirability were significantly related to inverse relationship. Those who reported lower levels of cheating also reported
a greater need for approval (social desirability). Higher levels of openness and lower levels of perception (that cheating is serious) and self-control predict greater academic dishonesty. Students who cheat frequently are more neurotic, open to experience, and depressed. Additionally, these students have more situational-based anxiety and have a greater need for approval (social desirability). Cheaters also have less self-control and more apt to report rationalizations about their behaviour (seriousness of cheating). It is clear that a number of aspects can contribute to cheating behaviour. Students initially perceive cheating as wrong, but justify the behaviour in order to preserve their self-worth. They are attempting to release internal tension and increase self-perception in a maladaptive manner.

The Science Daily Sept. 8, 2010 reported that Williams et al. (2010) conducted three studies. The first of the three studies at the University of British, Columbia surveyed 249 second-year college students on take-home personality tests that looked at the Dark Triad and psychology’s “Big Five” core traits of extraversion, agreeableness, conscientiousness, stability and openness. Each of the Dark Triad variables went hand in hand with cheating at a high level of statistical significance. All the three traits of Dark Triad were significantly correlated with cheating. However, Psychopathy was ranked higher than Machiavellianism and narcissism on cheating. And students who were more conscientious and agreeable were less likely to have cheated. In the second study on 114 students, again the Dark Triad and plagiarism were closely and significantly linked. However, Psychopathy was again leading the pack of the Dark Triad. Thus it is viewed that personality profiling can help predict cheating. The third study on 223 students examined why students cheat. Analysis unearthed subgroups of students- (i) who felt that cheating was an appropriate strategy for reaching their ambitious goals (ii) students who were not morally inhibited (iii) students who were not afraid of punishments. Psychopathy was significantly linked with all three motivations. Incentives such as high grades and scholarships seem to activate dishonesty in these individuals. The achievement goals shared by most college students trigger cheating in psychopaths alone.
2.3 STUDIES RELATED TO STUDY INVOLVEMENT AND ACADEMIC CHEATING

The reviewed literature unearthed study habits or study involvement as another factor attributed to academic dishonesty. The available literature acknowledges that students who are more involved in studies are well prepared for exams or other assignments and hence do not cheat. On the other hand poor study habits and poor time management lead students to leave their assignments pending. When such students experience the pressure for preparation of exams or to complete their assignments, they are tempted to cheat. Hence, to compete the work in time, students find other alternates like plagiarism and lying about academic assignments. Some of the studies about study habits related to academic dishonesty are as under:-

Hogan and Hogan (1989) asserted that conscientious students tend to be better prepared and, therefore, have less need to cheat. The findings were later confirmed by other studies that poor scholastic competence-whether lack of raw ability (Cizek, 1999; Paulhus et al, 2005) or lack of preparation (Whitley, 1998) put students in a difficult situation that made them inclined to cheat.

Kirkvliet (1994) compared survey results of cheating by economics students. It was found that cheating decreases as the quality and quantity of study time increases. Between 25 and 42 percent of economics undergraduate have cheated on exams. Heavy drinkers who are member of fraternity or sorority are the most likely offenders. When students were questioned directly about their cheating, the results reported only simple correlations between cheating and respondent characteristics. However, when the students were given a randomized response which further protects confidentiality, the results were found more truthful and yielded more accurate information than direct questionnaires. Further, students performing poorly in a class were more likely to cheat. From the past studies, negative relationship was found between cheating and expected grade in the class and GPA.

Diekhoff et al. (1996) found that the number of hours worked was negatively related to cheating. This finding seems to be counterintuitive to the time pressure excuse preferred
by students in studies of college cheating. In this study, the researchers also found that unmarried students were more likely to cheat than married students.

McCabe and Trevino (1996) suggested that college students consider their college a place to get a credential which allow them to pursue a chosen career. Means of getting that credential is often less important than simply getting it. A student at a major university admitted once that students do not think twice about cheating or copying others work. It shows how little they understand what an education really is. It was estimated that more than 85 percent of students just want the degree itself and try to get it with the minimum work possible. Hence there is the prevalence of cheating.

McCabe and Trevino (1997) had reported that students who were engaged in intercollegiate athletics and other extracurricular activities self-reported that these activities place time-demands on students and their decision to take various short cuts to stay up to date and remain competitive in their course work.

Whitley (1998) conducted a review of 107 studies about prevalence and correlates of cheating among college students published between 1970 and 1996. Among the strongest correlates of cheating were: having moderate expectations of success, past cheating, poor study conditions, positive attitudes about cheating, perceiving that social norms support cheating and anticipating rewards for success. It is note worthy that lack of preparation puts students in a difficult position that creates a need to cheat. Poor study skills, low levels of industriousness and high levels of procrastination, high test anxiety are some of the characteristics identified as the characteristics to identify students at risk for dishonesty.

Carroll (2002) reported that two third of teachers believed that poor time management is the principal cause of cheating. They blame social engagements for students getting into academic cheating. It was found that there is a strong correlation between extracurricular activities and cheating, especially among athletes, even those on intramural teams, students cheating rates rise significantly. The more time students spend playing cards, watching television or having a few drinks with friends, the more they are inclined towards cheating.
Lambert et al. (2003) reviewed that involvement in extracurricular activities has been linked to increased cheating. Those involved in sports have, on average, higher levels of academic dishonesty as compared to students who are not involved with a varsity sport. Their involvement in extra-curricular activities provides them less time to devote to academics and thus less time to devote to studies. On the other hand employment has been observed to be inversely correlated with cheating (since employment also decreases the amount of time available to devote to studies). This contradictory finding with employment provides support for the social pressure theory rather than the lack of time theory.

Alam (2004) investigated if plagiarism is more prevalent in some forms of assessment than others. The results of qualitative data revealed the reasons why students plagiarise in IT. The majority of the students (43%) identified that laziness, lack of motivation to work hard and copying as an easy way out are some of the major reasons why students plagiarise. Only 11% of the sample plagiarise in order to achieve higher grades and/or simply to pass the subject. One third of the students regarded poor time management and stress to complete the workload in time as the reason for plagiarizing. The majority of the students who plagiarized work part time, leaving them with little time to devote to their studies.

Nathanson et al. (2006) affirmed in the study that students low on conscientiousness are more likely to procrastinate on academic tasks and put less efforts in preparing tests than the students who are high in conscientiousness. Low conscientiousness in students leads to poor preparation for tests and students get increased pressure to show better performance which make them less concerned about rules and then cheating might be considered as an alternate to their problem.

Miller et al. (2007) discussed characteristics of academically dishonest students and investigated the role of athlete status and involvement in extracurricular activities in general and found them both to be correlated with cheating. Review of some studies revealed that cheating decreases as the quality and quantity of study time increases and
also as class attendance increases. Similarly, students who procrastinate are more likely to be cheaters than are those who plan their study time appropriately.

**Essay on Academic Cheating (2010)** gave many reasons which cause students finding academic cheating as easy way out of studying. Parental pressure, poor time management, and failure to study assigned work are just a few reasons that can cause a student to cheat. Many students may have jobs and other priorities that may seem important to them rather than studying. And if the certain requirements regarding studies are not met then the students may be punished or suffer some other consequences, which soon will prompt the students to cheat. This may result in other activities outside of school that may interest them more than their academic works. Students will do cheating because they did not study for a test or assignment. They may also take academic studying lightly and do not consider it in their everyday schedule after school and decide to take the easy way out by cheating on certain assignments or tests. The solution given to avoid academic cheating is to plan more study time.

**Teaching Guide for GSIs (2010)** addresses some of the common causes and factors contributing to students’ commission of academic misconduct so that students may be helped to negotiate their academic difficulties without resorting to unfair means. It is submitted that one of the most common causes of academic misconduct is ineffective or inadequate study habits and if students are not familiar with effective and legitimate strategies, they may be tempted to try dishonest ones. Poor study habits and poor time management lead students often leaving assignments and test preparation to the last minute. Sometimes students do not know how to organize and prioritize their work, or how to handle multiple large course projects simultaneously. Sometimes they have difficulty copying with an overly ambitious course load. Some maintain high commitments to extracurricular activities, outside jobs, or family responsibilities in addition to their studies. Under such circumstances students may intentionally or unintentionally resort to dishonest practices in an attempt to raise their grade. Poor study habits also cause low confidence in writing skills. In want of sounding more erudite than they are, they may resort to using someone else’s words or ideas and thus get into plagiarism. It is also suggested that the temptation to cheat can be eliminated by learning
sound study habits and effective time and stress management skills. Common patterns in student behaviour that increase the temptation to cheat include, following behind in coursework or leaving large projects until the last minute; working on other fields for too many hours leaving little time to keep up with courses; taking too many difficult courses at one time, and distract from studies and interfere with concentration.

The Science Daily (Sept 8, 2010) reported that educators expect that students who are not well prepared (which is one outcome of less study involvement) are also more likely to cheat.

2.4 STUDIES RELATED TO SOCIO-ECONOMIC STATUS AND ACADEMIC CHEATING

The investigator scanned the literature on academic cheating in relation to socio-economic status thoroughly, but only few studies could be traced. Austin, Collins, Remillard, Kelcher and Chui (2006) reported the limitations of the study. To encourage full and honest disclosure, salient demographic characteristics of respondents (including race, ethnicity, religious background, cultural background, age, socio-economic status) are generally not accepted by Ethics Review Boards as part of the instrument design. However, a few studies available about socio-economic status in relation to academic dishonesty are as follows:

White (1982) reported that there is a relationship between socio-economic background and performance in achievement tests. The higher the socio-economic status (or the more privileged the class grouping) the higher the level of achievements. However, the relationships cannot be described as strong.

Puett (1999) conducted a survey on 631 participants from two elementary schools. The study to find relation between socioeconomic status of students and their views about cheating. The study also examined if there was difference between first through sixth grades biers of cheating. Results showed a main effect for school and grade. Children studying in lower socioeconomic status school were more likely to view the cheating scenarios as being okay. Fewer children attending the higher socioeconomic status school viewed the cheating behaviours as being okay. As children grew older they were less
likely to view cheating behaviour as being okay, with the exception of second graders, whose overall percentage was higher than any other grade at both schools. Most students in third through sixth grade had a clear indication of what cheating is and did not view it as being okay. Data in this study indicated that elementary school children view certain cheating behaviours as okay. Perhaps this is the reason why many high school and college students report cheating as early as at first grade.

**Luther and Becker (2002)** investigated factors influencing substance abuse among sixth and seventh graders from an affluent community. Affluent, suburban youth is “particularly vulnerable to anxiety and depression related to academic pressure” and suffer from unique psychosocial adjustment problems and “manifest themselves in higher incidences of substances abuse and academic dishonesty as compared with the national norm”.

**Kirsch, et al. study (as cited in Mary, 2004)** found that Socio-economic status was a significant factor in literacy achievement but of particular importance was the predictive power of reading engagement in relation to socio-economic status. Students from the lowest occupational status but highly engaged in reading obtain higher average reading scores than students whose parents have high or medium occupational status but who report to be poorly engaged in reading.

**William’s study (as cited in Mary, 2004)** found that school climate was shown to be an important substantial within school variation. Students were more likely to be engaged in schooling if they attend schools with high average socio-economic status, strong disciplinary climate, good student-teacher relations and high expectations for student success. It is expected that students who take interest in schooling will be more serious about their studies and may not engage in cheating.

**Callahan (2006)** asserted that the broader socio-economic trends such as rising economic inequality and increasing middle class insecurity help fuel cheating. Likewise, our universities have limited influence over the broader socioeconomic trends that help fuel cheating.
Passow et al. (2006) conducted a survey on 643 engineering students about their decision to cheat by type of assessment. In this study, socioeconomic status as independent variable was found having negative correlation with frequency of cheating in exams as well as frequency of cheating in homework.

Jain (2009) asserted that The No Child Left Behind Act requires schools to demonstrate adequate yearly progress in order to receive federal funding for low-income students. Schools that fail to meet adequate yearly progress for five years can be shutdown. The Act requires schools to administer standardized tests each year to measure student progress. Such schools which are dominated by low-income students would resort to cheating. Historically, low-income, minority, and other high-risk kids have not done well on standardized tests.

Brenner, K (2010) asserted that parents of higher socioeconomic status are more likely to expect their children to attain a higher education and higher level jobs than parents of lower socioeconomic status. Parents expect their children to spend most of their time studying. When parents exert too much pressure, the adolescent get limited time to explore possible future options which can lead to lowered self-esteem, a lowered sense of assertiveness and less competence in school skills. Parents apply significant amount of pressure for good grades, not knowledge, which can lead to cheating. Children consider that it is easier to cheat than continuously bear the pressure of handling the course chosen under parental pressure.

Khan and Khan (2011) investigated an association between socioeconomic status of students and malpractices used in Secondary School Certificate Examination. The investigator found significant relationship between students education level, and siblings and cheating in examination. However, other variables namely; students age, their fathers’ education and occupation, parents’ income level, their mothers’ education and status, number of average self-study per day, and tuition facility at home showed no relationship with cheating in the examination.
2.5 STUDIES RELATED TO DEMOGRAPHIC VARIABLES AND ACADEMIC CHEATING

The literature on academic cheating is not limited to personality, study involvement or socio-economic status of the students. A large number of studies indicate wide range of determinants attributed to academic cheating. These determinants are associated with students individual characteristics (e.g. age, gender, GPA, academic year of studies, religious orientation, students status etc.) or related with the educational institutions (e.g. size and level of class, category of teachers, existence of honor code, class room environment) or some other factors (e.g. pressure not to fail, parental pressure, type of courses etc.). Numerous studies have specifically investigated gender differences in cheating behaviours. Most of the studies as cited in Miller et al (2007) have found that males report more cheating than females (Calabrese and Cochran, 1990; Davis, Grover, Becker, and McGregor, 1992; Michaels and Miethe, 1989; Newstead, Franklyn Stokes, and Armstead, 1996). Some exceptions to these findings include Haines, Diekhoff, LaBeff, and Clark, 1986); who found no differences in reported cheating between genders. However, Jacobson, Berger, and Millham (1970) found that females cheated more than males. Moreover, gender has been infrequently found to be a significant predictor of self-reported cheating behaviour when it was included in studies as a controlled variable rather than the focus of the investigation (Anderman, Griesinger and Westerfield, 1998; Anderman and Midgley, 2004; Genereux and Mcleod, 1995; McCabe and Trevino, 1997). Males have generally been found to engage in academic dishonesty at a higher rate than females (Baird, 1980; Sierles et al., 1980; Tang & Zuo, 1997). Brown and Abramson (1999) found participation in dishonest academic activities related to gender for four of 16 practices. Whitley (1998) found that, overall males are more likely to cheat. However, Stern and Havlicek (1986) found few differences between the genders. It was agreed that men, students’ at large institutions which are supported by the state, and students with lower academic abilities cheat more often than women, students at small private colleges, and students with higher academic abilities do. (Brown and Emmett, 2001; Davis et al, 1992). More studies like Newstead and Colleagues (1996) determined that cheating was more common among males, students of lower academic
abilities, younger students, and science students. Although demographic variables are popular and extensive in the research literature, they are, in most cases, fixed variables. Allmon et al (2000) were surprised to find that increasing age was overwhelmingly the best predictor of negative attitudes towards two forms of classroom cheating, “getting a class mate to write a term paper” or “do the work on a computer project”. Several researchers have found that students with lower GPAs cheat more than those with higher GPAs (Bunn, Caudill, & Cropper, 1992; Moffatt, 1990; Tang & Zuo, 1997). However, Whitley (1998) concluded that, overall, GPA has not been found to be related to cheating and class rank is essentially unrelated to the level of cheating. However, a brief description of some other variables linked with academic cheating is presented below for widening the area of understanding about academic cheating.

Barnes (1975) measured only one type of cheating i.e. acquiring test from students who took a test earlier in a day. Empirical evidence were obtained from written examinations of college students to identify test information acquirers and it was found that students likely to acquire test information are those for whom getting degree is more important and for whom cheating is more attractive than studying. Such students are working students, lower grade point students, course repeaters, persons with a longer period of time between the first and second section of the day, non majors, persons with friends in the first class, and men. Students apparently sought test information not because they felt exams were unfair and not as an exception but rather as a normal part of preparing for an exam. This behaviour raises several challenges. The problem of cheating is not so great with motivated students. (Majors, students with higher grade points). The problem is more serious in required courses, with more repeaters and students looking toward graduation. It is particularly interested that students with jobs were found less interested in a high score and more interested in learning, despite the higher opportunity cost of their time and the reduced time available for study.

Bushway and Nash (1977) studied the literature pertaining to cheating including the personal characteristics of cheaters, school factors and reasons for cheating. Evidences were found to support the views that cheaters are more likely than non-cheaters to be less intelligent, to be higher on extroversion and neuroticism, to be less self-sufficient, to be
involved in studies that are perceived to be meaningless and more likely to be males than females. Evans, Craig and Mietzel (1993) found that evidence for the gender differences in cheating vary with some studies showing strong differences and others showing no differences between males and females. Further it was found that school factors, such as a strong anti-cheating or moral climate, a strong chance of being caught and punished, and positive open and fair attitudes in teaching and assessing styles, decrease the incidents of cheating behaviours.

Cole and Smith (1995) went so far as to suggest that the term ‘business ethics’ has become an oxymoron to some – a number of recent studies have sought to investigate the relationship between academic dishonesty and unethical behaviour in the ‘real world’.

Newstead et al. (1996) conducted survey among 943 college students and determined that cheating was more common among males, students of lower academic ability, younger students and science students. Males reported cheating more frequently than did females. An interaction between gender and academic achievement was also found in the study. Lower achieving males reported cheating more frequently than did lower achieving females. This gender gap decreases as achievement increases. This interaction between gender and academic achievement points to the complex relationship between ability and cheating. Researchers commonly refer to ability as a correlate of cheating behaviours, and it is generally believed that the students of lower ability are more likely to engage in cheating behaviours, however, the construct of ability is conceived in many different ways across the cheating literature. The relation between ability and cheating is accepted to be an inverse relation. Conversely, students who have higher goals and experience higher pressure to succeed are more likely to cheat.

Crown and Spiller (1998) noted the following with respect to individual factors: while earlier studies suggested cheating was more prevalent among males, more recent studies suggested female cheating is increasing, possibly due to a convergence of role requirements among males and females in the academic environment. Within the ‘traditional’ age-span of 17 to 22 years, findings have been mixed regarding whether older or younger students are more likely to cheat; however, there is some evidence that
‘non-traditional’ age students cheat less. There is strong empirical support for a negative correlation between academic ability and cheating. The shortcomings of the ‘individual differences’ approach were highlighted by McCabe and Trevino (1993), who pointed out that observations regarding the influence of individual factors on levels of academic dishonesty, provide little guidance in terms of how the problem of academic dishonesty may be minimized.

Gerdeman (2000) reported that cases of academic dishonesty are increasing with time. Several factors affect the incidence of dishonesty in community colleges. These are: Individual student characteristics – low GPA, young age, greater number of extracurricular activities and social events, business majors, and (in some studies) being male; Peer influences – if peers disapprove of this type of dishonesty, the incidence is lower; Instructor influences – if the instructor cares about and discusses the issue and makes the classroom setting secure for exams, incidence is lower; Institutional policies – only 3% of community colleges polled asked their faculty to discuss this issue with students. Though most CC had a policy in the college handbook, it was not emphasized.

Hendershott, Drinan, and Cross (2000) surveyed students at a comprehensive private Catholic university. Considerable variation was found across five majors having observed cheating on exams, willingness to assist others in cheating, and reluctance to report cheating to school authorities. Business majors showed the lowest level of honesty on all three indicators.

Jordon (2001) assessed cheaters and non-cheaters (i) on two types of a motivation (mastery and extrinsic) (ii), on perceived social norms regarding cheating, (iii) on attitudes about cheating, and (iv) on knowledge of institutional policy regarding cheating behaviour. All five factors were significant predictors of cheating rates. In addition, cheaters were found lower in mastery motivation and higher in extrinsic motivation in courses in which they cheated than in courses in which they did not cheat. Cheaters, in courses in which they cheated, were also lower in mastery motivation and higher in extrinsic motivation than were noncheaters. Finally, cheaters differed from noncheaters
on perceived social norms regarding cheating, on their knowledge of institutional policy regarding cheating, and on their attitudes toward cheating.

**Jordon (2001)** studied academic dishonesty on 490 high school and college students in the age group of 14 to 23 years. Students evaluated the acceptability of an act of academic dishonesty under 19 different circumstances where a persons’ motive for transgressing differed. Students’ evaluation were related to self reports of cheating behavior, sex, school grade, and psychological variables. Results indicated that high school and college students took motives into account when evaluating the acceptability of academic cheating. Cheating behavior was more common among those who evaluated cheating leniently, among male students, and among high scholars. Also, acceptance of cheating and cheating behavior were negatively related to self-restraint, but positively related to tolerance of deviance.

**Pino and Smith (2003)** surveyed students at a medium-size state university in the Southeast regarding their attitudes and behaviours about learning. Three hundred and forty-five students (52.8 percent) indicated they had never committed any act of academic dishonesty. Students who possessed an “academic ethic” were less likely to commit acts of academic dishonesty and earned higher grade point averages. A variety of factors including sex, grade point average, race, social class, fraternity/sorority membership, major, paid employment, and those variables associated with the academic ethic were assessed for their influence on academic dishonesty. The higher was classification, the more likely one would engage in acts of academic dishonesty. The more the students watched television and participated in student clubs, the more likely they were to commit acts of academic dishonesty.

**Smyth and James (2003)** provided insight into the attitude toward cheating and the degree of cheating present in community college environment. The widely publicized problems that world corporations have contributed to our society were used as a basis for this study of student cheating. Cheating and fraudulent activity among CEOs and financial executive have created a climate where many people now doubt the integrity of the corporate and financial institutions in the United States. Further, it was found that
almost 74% of the respondents have observed collegiate cheating, 43% have witnessed the detection of cheating, and 45.6% have confessed to cheating at least once; Males generally report a significantly higher incidence of cheating than do females; Both male students and dorm students report a higher and statistically significant willingness to assist another student in cheating; Although a high percentage of all respondents agree that cheating is ethically wrong, nearly half of the respondents find cheating to be socially acceptable; Male responses regarding the acceptability of cheating was significantly higher than the female response average.

Brown (2005) has cited that three studies were found which compared the extent of participation in dishonest academic practices of students in secular and religious schools. A relationship between school type and behavior was reported in two of the studies. (i) Calabrese and Cochran (1990) surveyed students in grades 9 through 12 at one public and one private, mostly white Catholic school. The Catholic school students had higher scores on academic dishonesty than did the secular students, indicating a higher “potential frequency of involvement” in dishonest academic practices. (ii) Graham, Monday, O’Brien, and Steffen (1994) surveyed 350 students at a private Catholic college and 150 students at a community college. A difference in the amount of cheating was found for only one of 17 behaviors the authors defined as cheating. Students at the Catholic college were more likely to study notes taken by someone else. It is interesting to note that in these studies where a relationship between the type of school and the level of academic dishonesty was found, the relationship was the opposite of what might have been expected. In both cases the level of dishonesty was higher in the religious school. (iii) Bruggeman and Hart (1996) utilized an experimental design to detect cheating and a questionnaire to detect lying to compare the moral behavior, defined as cheating and lying, of students at Catholic and secular high schools. Seventy percent of the Catholic school students had engaged in cheating or lying, while 79% had engaged in cheating at the secular school. However, this difference was not statistically significant in the sample of 221 students.

Further Graham et al. (1994), in their survey of Catholic college and community college students, found that students with lenient attitudes toward cheating were less religious.
Sutton and Huba (1995) surveyed students at a large state university. It was found that those more involved in religious activity were more likely to rate it cheating such as padding a bibliography, copying a few sentences in a paper without footnoting them, and working with other students on homework when the instructor did not allow it. A consistent relationship has not been found between either schools' status as religious or secular or students' religiosity and students' participation in or attitude toward academic dishonesty.

Callahan (2006) found that students who have learned a strong sense of right or wrong early in life, may be more willing to sacrifice personal advancement for the sake of their values. Students with a theistic outwork are less likely to cheat. But most colleges are not in the position to reshape students’ character at this level.

Aurora et al. (2006) found that the overall grade point average is a cheating determinant used in most of the studies, even though its statistical significance is seldom found. A negative relation is usually expected between GPA and copying in an examination, as it is reckoned that students with a high grade point average would have less to gain from copying than those with a lower average.

Kalía, A.K. (2006) examined empirically the interactive effect Gender, Birth Order and Academic Achievement on academic cheating. Male students and low achievers were found higher on academic cheating than female students and high achievers. Birth order was found non significant on academic cheating. The three factor interaction among gender, birth order and academic achievement showed that there is no cumulative effect of these variables on academic cheating.

Miller et al. (2007) ascertained what features of personalities and backgrounds of students involved in academic cheating led them to break the rules and claimed that although cheating appears to increase as students move through the K-12 school system, no age group is exempted from acts of academic dishonesty. The decision of involving in academic cheating occurs within the mind of the individual and is inherently psychological in nature. Cheating tends to occur less in younger children than in adolescents. Cheating rates decline throughout college and again in graduate and
professional programs. Younger students are more likely to cheat than older students when comparisons are made between high school students and college students.

**Craciun (2007)** studied mood effects on ordinary unethical behaviour (among 110 graduate students) on the basis that state of mood would affect their cheating behaviour. The study found that individuals in positive-affective states will be more prone to engage in risky behaviours due to their affective state. This propensity translates to positive affect individuals the positive information associated with their behaviour (i.e. possible gains, higher grades) more than negative information (i.e. potential risks, expulsion for cheating). Thus positive affective states may increase cheating behaviour due to the lack of focus on negative consequences and a stronger focus on positive outcomes. The results of the study indicated that those in a positive-mood state cheated significantly more than those in a negative-mood state. It is reported that “contrary to popular wisdom, people in a positive mood were more likely to cheat on a test than were people in a negative mood”.

**Scott (2007)** studied about moral identities, social anxiety, and academic dishonesty among American college students and found symptoms of social anxiety positively correlated with recall of academic cheating. And students were less likely to cheat on their school work when they placed greater emphasis on this moral identity and were less sensitive to social evaluations.

**Noel and Carry (2008)** asserted that characteristics, such as age or gender, are considered internal factors, and are inherent to the individual (Gardenswartz & Rowe, 1994). Others, such as education or experience, are considered external factors. As such, these are the factors that can be changed by the individual over time. At the core of an individual are their personality traits, which create the unique way in which an individual interacts with other individuals and to situations. Thus, core individual personality traits may have direct or indirect effects on ethical behavior.

The results of this study indicated that academic dishonesty appeared to be prevalent among all majors at the university level, business and non-business alike. The positive tests for cheating and plagiarism, but not for collaboration, peradventure
indicated that academic dishonesty is primarily an individual choice. That is, one might infer that because collaboration was not significant, collective efforts by students at dishonesty are not as prevalent. However, collaborative rather than individual efforts were detected as the most prevalent form of academic dishonesty. The fact that Conscientiousness was not related to academic dishonesty was perhaps the major surprise of this study. While Openness affected both cheating and plagiarism, the ubiquity of reports of the validity of Conscientiousness in predicting performance made it the prime choice in explaining dishonest behaviors. Academic dishonesty is an ever-present impediment to both student learning and performance measurement in university classrooms, and in combination with recurrent advances in technology, is unlikely to abate any time soon.

Above studies surfaced a number of strands around an individual trapping him in the web of cheating. Much of the ink has been spilled to figure out prevalence and perception of academic cheating and, it seems that cheating is prevalent in many forms in almost all academic fields. Thus we need to pay more attention towards the complex structural issues related to an individual and his surrounding environment which drags him in breaking the honor codes in an academic institution. We need to understand young minds more, only then proper measures could be taken to control the spreading virus of cheating.