THE TESTING PROCESS IN A VIETNAMESE UNIVERSITY: AN INVESTIGATION OF TEACHERS' AND STUDENTS' PERCEPTIONS

by

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Abstract

Testing practices have been shown to have great effects on teaching and learning in the university. In Vietnam, there have been many problems associated with the testing process, and these are generally seen as being related to a perceived decline in the quality of students enrolling in universities. This study was conducted to help identify some of the problems surrounding testing practices, and to offer suggestions for improving the process.

This is a study of university teachers' and students' perceptions of the testing process in Vietnam. Information was collected via a survey questionnaire of 178 students in their second, third, and fourth year of study in the Chemistry Department of the University of Hochiminh City. Interviews were conducted with nine faculty members in the department.

While most students demonstrated a good understanding of the use of testing, many questioned the validity of the tests. Respondents expressed concern about "rote learning," and cheating, which they felt were encouraged by the kind of tests being used and the way in which they had been administered.

The teaching staff relies mainly on past experiences and intuition in making tests. Not only do they lack knowledge of testing practices, they show little understanding of the sorts of problems some students experience in writing examinations. Although there is general agreement about the need for improvement, teachers pay little attention to assessment practices. In some cases, teachers reported that they actually are interested and willing to try new ideas, but that "the system" is improperly managed.

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DEDICATION

To my parents, whose love and supports have helped me get through all the hard time.

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Chapter 1
Introduction

The evaluation process plays a great role in the school. It has been used as a powerful tool to assist the teaching and learning process. Many educators have come to common agreement on the impacts that evaluation can bring to the school. First, evaluation is a method of acquiring and processing the evidence needed to determine the student's level of learning and the effectiveness of teaching. Second, evaluation can be used as an aid in clarifying the significant goals and objectives of education and as a process for determining the extent to which students are developing in these desired ways. Third, evaluation is a system of corrective feedback to determine at each step in the teaching-learning process whether changes must be made to ensure its effectiveness. Bloom, Madaus, and Hastings (1981), in their book about evaluation, have considered evaluation an important component of the learning process, in which the process of evaluation, instructional decisions, analysis of learners and learning outcomes are interdependent. They emphasised that in order to get the best from the learning process, the teacher must be able to diagnose the relevant characteristics of his or her students, their readiness for the learning tasks at the point of entry as well as during the learning process, and on the basis of this information, make suitable adjustments to his or her teaching.

While Bloom et al. (1981) focused on the benefits that teachers gain from evaluation, Gronlund (1981) argued that evaluation can have big impacts on improving student's learning by its ability to clarify the nature of the intended learning outcomes, provide short term goals for students to work towards, provide feedback concerning

learning processes, and provide information for overcoming learning difficulties. Crooks (1988), after examining many studies, came to a similar conclusion:

> Classroom evaluation affects students in many different ways. For instance, it guides their judgement of what is important to learn, affects their motivation and self-perceptions of competence, structures their approaches to and timing of personal study, consolidates learning, and affects the development of enduring learning strategies and skills. It appears to be one of the most potent forces influencing education. (p. 468)

Gronlund (1981) shared the view point with Bloom et al. when saying that "the teaching and learning processes involve a continuous and interrelated series of instructional decisions concerning ways to enhance pupil learning" (p. 5), and that, "the effectiveness of the instruction depends to a large extent on the quality of evaluation information on which the decisions are based" (p. 5).

It is obvious that evaluation has an important role in assessing the teaching and learning processes. But this is not the only function of evaluation. In fact, evaluation has been used much more for its other function: the function of "quality control" in the school. It has been used for the purposes of "policy making," "standard monitoring," "target setting," and "curriculum improving" in the school (Sumner, 1991).

Because of its great effects on the educational process, evaluation, if used improperly, can cause much damage to the education system. Recently, there have been many criticisms of the misuses of evaluation in the school. Most of all, educators complain about the over-emphasis of grading and selecting function of evaluation while the role of facilitating teaching and the learning process has usually been ignored. Crook (1988) criticised:

> Too much emphasis has been placed on the grading function of evaluation, and too little on its role in assisting students to learn. The integral role of evaluation in

teaching and learning needs to be grasped, and its certification function placed in proper perspective. (p. 468)

Bloom et al. (1981) had the same idea:

> The purpose of evaluation, as it is most frequently used in the existing systems of education, is primarily the grading and classifying of students. It is designed to find those who have failed (D or F), and those who have succeeded (A or B), and those who have got by (C)... As testing and other forms of evaluation are commonly used in the schools, they contribute little to the improvement of teaching and learning, and they rarely serve to ensure that all (or most of all) learn what the school system regards as important tasks and goals of the educational process. (p. 4)

Many other critics focus on the lack of knowledge about evaluation within the administration and teaching staff in the school. This shortage of knowledge directly leads to the consequences of low quality assessment processes, test misuses, and evaluation bias which have great negative impacts on the students and the school. Crook (1988) indicated:

> All too often, classroom evaluation places heavy emphasis on the recall or recognition of comparatively isolated pieces of information to which the students have earlier been exposed. This encourages surface (memorising) approaches to learning. (p. 468)

Milton (1982) gave a general picture of the insufficient knowledge of evaluation among the teaching profession. He pointed out that many teachers do not have enough knowledge about evaluation such as making tests and interpreting their results. They usually rely on their own experiences, intuition, or trial and error during the teaching process.

The uses and misuses of evaluation processes in the school have been a concern of the education system of any country. Vietnam is not an exception in this respect. Recently, due to many rapid changes in the socio-economic situation, the Vietnamese

educational system has been forced to change in order to adapt to the new situation. Together with curriculum development and educational management, evaluation has been considered the most important aspect that needs to be improved, especially in higher education.

For the last decade, higher education in Vietnam has been in a crisis of "declining quality." The college and university system has failed to catch up with the increasing demand of the society for high quality manpower: there has been a large number of students entering the workplace without being well-prepared with sufficient knowledge and skills. This is the consequence of the way the system had been. Before 1987, the higher education system was managed by the central government, with the purpose of recovering the severe shortage of specialists in many state enterprises and offices. As a result, "almost every admitted student would receive a government grant, would graduate, and be assigned a job in a state enterprise or office, without regard to his or her academic achievements" (Le Thac Can, 1991). During that period, the system had been under little or no pressure to make improvements in the quality of education.

Things have changed since 1987. The government of Vietnam decided to make "renovations" to change the economy from a centrally planed economy to a mixed economy with both socialist and market sectors. The old way of managing higher education became insufficient for the new situation. Many important changes in the role of higher education have been made since then, as Le Thac Can (1991) describes:

1. Higher education institutes are training specialists not only for the state-owned sector of the economy but also for enterprises that are co-operative, privately owned, and joint ventures. The task of higher education is not just confined to the supply of scientific and technical; manpower to society; it is also designed to meet the demand of people to receive scientific and cultural education.

2. Higher education and training are being carried out not only under the auspices of the state plan but also according to contracts among universities, colleges, and prospective employers or through agreements between educational institutes and fee-paying students.
3. The job placement of graduates is arranged not only by state plan, but also through contracts between universities and colleges and employers. Graduates are encouraged to find their own employment in all sectors of the national economy (p.172).

The new role opened the door for the improvement of the higher education system, but certainly not without a costly price. With the open policy, the universities and colleges had to face a problem of over burden. While the teaching staff and resources are limited, the number of students has been increasing rapidly year by year, and this has lowered the quality of students, generally. After almost eight years of renovation, "quality decline" is still a big dilemma for the system at this time. There have been many efforts to solve this problem such as: setting a national standard for higher education, applying the credit system and, even recently, reforming the structure of the whole system. None of them seems to "bring about the spring" to the system.

One reason that leads to the failure of these efforts is the lack of communication between administrators who make changes in policy and teachers who directly implement these changes. Most of the changes come from the subjective judgements of the policy makers who do not have extensive understanding of the problems that particular institutes have to face. Teachers, on the other hand, understand these problems but have little or no power in making decisions about changes. The teachers express their disagreement by paying little attention to change processes that they find inappropriate. As a result, most of the changes take place at the administrative level, such as policies, standards, and procedures, but these have little effect in improving the situation.

The other reason for failure is the shortage of educational knowledge among the teaching staff. Most of the university and college teachers do not have background knowledge of education, such as a variety of teaching methods, and evaluation tools and procedures. They rely mostly on their own intuition and experiences during the teaching process.

In such a context, in order to solve the dilemma, the first and foremost step must be to identify correctly the situation. Strong and weak aspects of teaching-learning processes must be identified. The perceptions of administrators, teachers, and students should be examined carefully in order to find out the most appropriate way to develop the system. There is a need for studies that can help to form a clear picture of the system, as well as studies that can provide information about teachers, students, and teaching-learning processes.

As mentioned earlier, evaluation plays an important role in controlling the quality of school. Quality decline is a consequence of the poorly functioning evaluation processes, both directly and indirectly. The selecting and certifying function of evaluation, if done poorly, will allow unqualified students to get through the system. That is the direct consequence. The indirect consequence is the misuse of evaluation in facilitating and assisting teaching and learning processes. This misuse can cause negative effects in students such as "surface studying" that is, study for the degree and not for knowledge (Crook, 1988). Misused evaluation processes provide teachers with little valuable information about the learning process of students, in order to make adjustments and improvements in their teaching. This also leads to the decline of student quality.

It is clear that evaluation should be the first aspect to be considered in order to solve the "quality dilemma" in the higher education system of Vietnam. As discussed earlier, there is a need for studies that can illuminate the problem in order to correct the system. This study will focus on the testing process in higher education institutions, investigating the perceptions of university teachers and students about the uses and misuses of tests in the university classroom.

Chapter 2
Literature Review

In order to find the most appropriate way to conduct the study, previous studies about testing in the school are reviewed. Studies about the uses and misuses of tests, the role of teachers in testing, and the effects of testing on teaching and learning processes are examined.

The Uses of Tests

Testing has been a significant fact of life for a long time. Various means of testing human performance have been used throughout history. As early as 2000 BC, Chinese officials used examinations to select personnel for the public office. This grew into an elaborate series of written essay examinations by the time of the Han Dynasty (206 BC.-10 AD. 220) (Dubois, 1970). Examinations were also part of the normal educational process in ancient Greece. As early as four centuries before Christ, Socrates used oral questioning as an integral part of teaching and learning processes (Worthen, Borg, & White, 1993). Tests have become more and more scientific and have been used widely in and out of the school since then. Tests have been an important part of the school from kindergarten to university, and have been used at every level, from classroom, school, district, provincial, to national and international. Their uses have included directing decisions in the education system, such as: instructional decisions, management decisions, selection and certification decisions, as well as program administrative and policy decisions. Testing has been considered "the chief yard-stick in today's educational accountability surveillance system" (Popham, 1990).

Testing is also an educational device that can provide objective information in order to modify the subjective, common-sense perspective of teachers in making educational decisions (Kubiszyn & Borich, 1987).

The teaching-learning process involves a continuous and interrelated series of instructional decisions concerning ways to enhance student learning. It is very important for the teacher to make good decisions during the process. Without the help of measurement devices, it is very easy for the teacher to make subjective decisions that are harmful to the learning process. Gronlund (1981) stated:

> Carefully collected evaluation data help teachers understand the learners, plan learning experiences for them, and determine the extent to which the instructional objectives are being achieved. It is not intended that evaluation instruments replace the thoughtful judgements of teachers but rather that they provide a more dependable basic for making such judgements. Instructional decisions are more likely to be sound when they are based on information that is accurate, relevant, and comprehensive. (p. 3)

Effects of Testing on Students

There is no doubt that testing has a great influence on students, who, from the first day to the last day of school, experience a huge number of tests. Tests have both good and bad influences on students. On the good side, tests assist students in the promotion of learning by giving them feedback on what they have mastered and what they have not. The study of Batten (1958) in 74 classrooms showed that learning was enhanced for those students who received appropriate personal comments on their papers such as "excellent," "good work," "try to do still better," "you can make it." The effects of feedback on students' performance was also studied by Kulhavy (1977), who found that feedback generally increased what students learned from reading assignments. To him, feedback

confirms correct answers to help students to "know what they know" as well as help them identify their errors of knowledge and understanding.

The other function of testing is consolidation. Duchastel (1973) showed that "merely taking a test on what one has just studied will enhance learning, even when feedback is not provided." In addition, Mathews (1985) found that students' desire to succeed, or fear of failure toward tests, can provide a sufficient motivation for the learning process. The benefits for students from testing, according to Crook (1988), can be explained by three factors:

> First, the testing gets the students to attend to the content another time. This constitutes a limited form of distributed practice, and the beneficial effects of distributed practice on retention are well established.
> Second, the testing encourages the student to actively process content, which is known to enhance learning and retention.
> Third, the test directs attention to the topics skills, and details tested, which may focus the student's preparation for a subsequent retention test. (p. 453)

Unfortunately, there are almost always two sides to everything. Testing, if used improperly, can cause severe effects on students and their learning. The learning process has been categorised into "shallow learning versus deep learning" (White, 1992), or "surface approach versus deep approach" (Marton & Saljo, 1976a). In deep learning, the students actively search for meaning and understanding of the material to be learned. They try to find out the principles, structures that link the different concepts or ideas together, in order to gain deep understanding. On the contrary, in the "shallow learning" or "the surface approach," students rely primarily on attempts to memorise course material, treating the material as if different facts and topics are unrelated. Their only goal is to perform well on the course examination and other evaluation tasks. These students

may "be able to manipulate complex formulates and to work through involved exercises while not understanding fundamental principles" (Gipps, 1994, p. 23). As a result, their understandings of the material are often discarded in a short time, for example, after a test or exam.

Students choices to follow shallow or deep learning is greatly affected by the teaching and learning context. Marton and Saljo (1976b) found that the students' choice of learning approach is very versatile. Their choice depends on factors like: academic motivation, the amount of studying material, and their perception of how their learning is evaluated. Tests and exams seem to be very potent in affecting students' choices of learning because they give students the clues to what should be studied and on what criteria they are evaluated. Rogers (1969) pointed out:

> Examinations tell them our real aim, at least so they believe. If we stress clear understanding and aim at a growing knowledge of physics, we may completely sabotage our teaching by a final that asks for numbers to be put into memorised formulas. However loud our sermons, however intriguing the experiments, students will judge by that examination- and so will the next year's students who hear about it. (p. 956)

The influences of testing on learning have been investigated by many studies. In the early 1930s, Terry (1934) found that "the kind of test to be given, if students know it in advance, determines in large measure both what and how they study" (p. 343). The study of Newble and Jaeger (1983) describes the effect of changing testing procedures in a medical school. They found that when evaluation changed from an oral examination to ward-rating, students spent more time in the library than in the ward. Apparently, students found that ward-ratings were almost always above the pass level, while written theory examinations did produce failures.

There is no doubt that the strategy of "studying for the tests" has been widely used in the schools. Miller and Parlett (1974) found that many students plan their study with the primary goal of passing the course examination. This trend is clearly illustrated by the study of Macdonald (1975), in which a student said:

> The secret of success is simply to learn how to take tests that are given. In order to do this, one must examine the tests that actually are given. The objectives instructors may talk about are usually quite irrelevant to the way they test and grade. Most talk should be ignored. After all, grades are what count, and you get good grades by doing well on tests. (p. 21)

Milton (1982) had a surprising experience when he found that only one-fourth of his students wanted to have their test papers discussed in detail while the others just wanted to receive the grades.

The Misuses of Tests

"Study for the tests" may not be a serious problem if tests are designed according to the objectives of the courses. Unfortunately, most students found that there are always conflicts between gaining deep understanding of the subject and getting good marks on the course exam. Even in a famous school like the Massachusetts Institute of Technology (MIT) problems in assessment have been identified at various times. In his study at MIT, Snyder (1971) found that while the formal curriculum emphasised a "problem-oriented approach" and independence of thought, the tests tended to emphasise an "answer-oriented approach" and rote learning. The same result was obtained from the University of Illinois where 82 percent of almost 3,500 students agreed that, "despite instructors' insistence that they do not teach facts, most grades are based on tests which are primarily factual in content" (Milton, 1982, p. 47). What teachers emphasise on tests so often appears out of line with what they have emphasised during instruction. Haertel (1986, p.

2) observed "classroom examinations often failed to reflect teachers' stated instructional objectives, frequently requiring little more than repetition of material presented in the textbook or class, or solutions to problems much like those encountered during instruction." In addition to these findings, Fleming and Chambers (1983), after analysing nearly 400 teacher-developed tests, came to the conclusions that:

- Teachers devised more test questions to sample knowledge of facts than any of the other behavioural categories studied.
- Almost 81 percent of the test questions focused on the areas of knowledge of terms, knowledge of facts and knowledge of rule and principles.
- Few questions were developed to test students' ability to make applications.

These conclusions proved that classroom tests tend to focus on lower order knowledge and skills at the expense of broad understanding and meaningful application.

Tests have been used with a false sense of precision, that is, without regard for their limitations. Too often they are based on the subjective intuition of the teacher. For one reason or other, teachers rarely use test information as a guide to improving instruction, and students rarely use test results to help them decide how to do better (Rudman et al., 1980). In agreeing with this argument, Kubiszyn and Borich (1987, p. 24) indicate that "teachers often know little more about a student after testing than they did before testing" and that "test scores have sometimes become ends in themselves while the meaning of test scores has tended to be ignored." The tendency to use testing as a tool for sorting, selecting, and classifying students has been considered the major purpose of testing, while the purpose of assisting learning and teaching has almost been ignored. In this context, the problem of "studying and teaching to the tests" is unavoidable. Besides

the consequence of leading students to "shallow learning," this tendency has the potential to produce much more harmful effects when the tests are invalid and unreliable. Mathews (1985) revealed this potential danger:

> In such a system of selection there is bound to be waste: waste of those who would have succeeded in late life but have not the ability to pass the examinations, and waste of those who have that ability but do not succeed in careers for which the examinations have qualified them. (p. 23)

The other problem with tests is the inconsistency of the criteria on which they are based. The criteria are different from institute to institute, from teacher to teacher. Even one teacher may have many different criteria for the same situation. Lunneborg and Patricia (1978) described the chaos in the grading system of the University of Washington. They found four different ways of grading: absolute, inspection, normal curve and individual. These differences added up to the fact that the grades, which students received, became meaningless; the same level of performance might get different grades from different professors. They also found that sometimes there was no relation between the level of achievement and the grade assigned, and that standards of performance could be distorted in many ways. Milton (1982) gave a clear description of the inconsistency of the grading system. He described a study in a dental school, where faculties were asked to make brief comments on a student's performance, together with assigning the grade. The result is as follow:

Student	Grade	Comment
1	B	Poor x-ray to show buccal canal, trial points too long.
2	B	Well done, rare
3	B	Student needs a lot of help, is not certain of essential concept.
4	C+	Student did very well, knew what he had to

		do and did it.
5	C	Well filled root canal, competent performance
6	C	This student is too meticulous
7	C	Cautious.

Milton (1982, p. 15)

The inconsistency is obvious and it is not an atypical problem in the other schools. Students' grades in many schools are "assigned in haste or according to a nebulous, undefined and little-understood marking system" (Kubizyn & Borich, 1987, p.138).

Teachers and Test Uses

There are many reasons, which the teacher is mostly responsible for, that lead to the misuse of tests. If teachers understand the good and bad effects that tests can bring, and they know how to make valid and reliable tests, as well as how to correctly interpret test results, there should be no criticism of the misuse of tests at all. Unfortunately, not many teachers can do these things. The misuse of tests has been proved to be the direct consequence of the teachers' lack of knowledge about testing. In their study, Farr and Griffin (1973) argued that "in general, teachers have quite limited knowledge of measurement concepts," and that they "are not being taught what they need to know about measurement in order to be more effective teachers." Gullickson and Ellwein (1985) found that teachers have not been taught how to evaluate their test items or accurately set criterion levels for student performance. They also noticed that few teachers took time to improve tests and usually reused their test items without careful item-analysis. There is a substantial proportion of teachers who have little or no formal

training in educational measurement techniques, and many of those who do have such training find it of little relevance to their classroom evaluation activities (Crook, 1988). Carter (1984) studied the test-making skill of 310 high school teachers and reported that teachers had great difficulty developing test items to measure specific skills, especially higher order thinking skills. They also learned to write items at higher skill level with difficulty and felt insecure about their test-making capabilities.

As a result of the lack of knowledge of measurement, teachers mostly rely on their own intuition and experiences in assessing the achievement of students. Most teachers, according to the study of Gulickson (1984), believe they learned how to test through their on-the-job experience, and that they are isolated in their testing for instructional purposes.

The lack of education in testing is the reason for the misuses of tests in the schools, which cause the harmful effects that were discussed earlier. At the higher education level, this lack in the teaching staff seems to be even worse. Nevertheless, some secondary school teachers have been trained in the basic knowledge of teaching and testing, while most teachers in higher education have not. They are appointed mostly in terms of their knowledge of their discipline, not their knowledge of education. Piper (1994) pointed out this feature of higher education:

> In what way does university teaching not fit the quintessential model of a profession? As we have noted appointment to academic chairs and lectureships requires a higher education, but the higher education required is in the discipline to be taught; no professional in training in teaching or examining is required. (p.9)

Professors and lecturers in universities and colleges consider themselves as researchers first and as teachers second. This perception was stated clearly in a statement by one drama professor: "The day we see ourselves as the drama arm of the teaching staff

rather than as the teaching end of the profession, is the day we give up preparing people for the stage" (Piper, 1994, p. 7). Because of this position, most teachers in higher education easily meet the criteria in respect to their academic discipline but seldom in respect to teaching and examining. Milton (1982) identified the shortage of educational knowledge of teachers in higher education:

> Most faculty members receive no formal instruction in the craft they practice, even most of those who serve as teaching assistants in graduate school learn by trial and error without systematic supervision. Since informal discussions about teaching, and about testing especially, are rare also, most of them tend to use uncritically the practices of their mentors. (p. 19)

Noll (1955), after asking 108 experienced teachers in a large eastern university about the fundamental concepts and procedures in measurement and evaluation, found that there was a serious lack of understanding of these concepts. A similar study was conducted at the University of Tennessee (Milton, 1982, p. 46). The result of the survey of 500 faculty members showed that almost three-fourths of the faculty admitted that they learned about test construction on their own, and over one-fourth attributed their test making skill to intuition.

The studies above revealed a tumour inside the body of higher education. For many years the higher education examination system has taken for granted the ability of its teaching staff to make consistent judgements over time as well as their ability to carry the academic standard from year to year. It appears not to be the case. To make the matter worse, it has become an obstacle to improving the quality of the system. It is surprising enough that the shortage of educational knowledge is still a big problem in higher

education today even though it has been identified for a long time. Almost 40 years ago, Dale (1959, in Piper, 1991, p. 6) made the criticism:

> One of the biggest obstacles to improvement is the unreliability and uncertainty of university examinations and the greatest obstacle to reform is the ignorance of the staffs of universities about the pitfalls which surround the examiners, the calm assurance with which lecturers and professors alike believe that they can carry around in their heads an unfailing correct conception of an absolute standard of 40 per cents as the pass line is incomprehensible to any one who has studied the reliability of examinations.

However, it is not fair to criticise only the teachers for their misuses of tests. So often they are forced to deliver heavy curriculum and have no time left to improve their teaching and testing skills. The problems of large class sizes and non-instructional duties also constrain teachers' efforts to improve assessment and its uses. In addition, the lack of consideration for teaching and testing in the school encourages teachers to keep their old routine day after day without finding ways to progress. Nedelsky (1965) described the situation:

> College science departments attach little prestige to good teaching and consequently allow very little time for related scholarly activity. Because science teachers are busy and likely to become busier, so that they will spend more time teaching and less in improving teaching. (p.189)

Gullickson (1984) also found that most teachers agreed that tests could be used more effectively if they had more time.

Purpose of the Study

From the results of the studies above, it is clear that solving the dilemma of test misuses is not an easy task. It requires careful consideration of all aspects: the curriculum, the school, the administrator, the teacher, and the student. It can not be done properly if one of these aspects is overemphasised or ignored. The studies above have been completed in order to clarify the problems within the testing system to help teachers, educators, and policy-makers to find ways to overcome the obstacles. For a long time, such studies have not been paid proper consideration in the Vietnamese education system. At this time, when many significant changes are underway in the education system, there is a need for studies that can point out the nature of the problems and help educators make correct decisions about what to do. As a response to that need, this study is an investigation to identify current problems in the testing system of higher education in Vietnam. The study investigates the uses and misuses of tests and exams in the university classroom, as well as the perceptions of teachers and students about the current uses of tests and how testing should be used. In particularly, the following issues are investigated:

- How testing has been used in the university.
- What factors affect teachers in the way they make and use tests.
- The effects of testing on teaching and learning processes :
  - How do teachers use testing to improve teaching?
  - How does testing affect the way students learn?

- What the perception of teachers and students is about the current uses of tests are and what they should be.

The scope of the study is limited to teachers and students in the Chemistry Department at the University of Hochiminh City, Vietnam.

Chapter 3

Methodology

As mentioned in Chapter 1, the purpose of this study is to determine the perceptions of teachers and students about the testing process in the university. In order to do that the following issues need to be considered:

- Students' understanding of the use of tests.
- Students' thinking about the current use of tests.
- Students' ways of studying.
- Teachers' thinking about the current use of tests.
- Teachers' ways of making tests and using test results.

Tools for Measurement

To investigate the above areas of interest, questionnaire and interview techniques seem to be the most appropriate (Alreck & Settle, 1995; Foddy, 1993; Oppenheim, 1992; Rossi, Wright, & Anderson, 1983). Survey questionnaires and interviews have been used widely in many similar studies, such as the studies by Noll (1955), Milton (1982), and Carter (1984).

However, in Vietnam, where education research is not popular with teachers and students, those methods need to be conducted in a careful way according to the characteristics of the situation. In the Vietnamese context, the teacher has a respected position. Many teachers find themselves in the position of giving guidance and not receiving guidance, especially from the researchers who do not have much teaching experience themselves. In this situation, it is unlikely for the researcher to get good results by giving the teacher some specific questions to answer. From my own experience, in this context, the most appropriate way to get good information from the teachers is through an informal interview in which the researcher and the teacher discuss

the topic they are studying. During the conversation the researcher needs to have the skills to focus the discussion topic on the ideas he or she wants to get from the teacher.

Vietnamese students, on the other hand, usually consider themselves in the position of receiving guidance. They will likely do what their teachers ask them to do. In this situation, questionnaires can help the researcher obtain useful information from the students.

Based on these premises, I decided to use questionnaires as a means to measure students' perceptions, and informal interviews to measure teachers' perceptions of testing. The questionnaire was formed from selected items of similar studies, as well as from teachers and students through informal interviews. This "raw" questionnaire was then piloted and was refined to be the official questionnaire.

The teacher interview framework was based on the following areas:

- How teachers think about the current testing process.
- How teachers make their own tests.
- How teachers use test results to enhance their teaching.

Participants.

250 students and 40 teachers in the Department of Chemistry of the University of Hochiminh City were chosen to be the study's participants. The distribution of students enrolled in the Department is shown in Table 1.

Table 1: Year of study of Participants.

	Second year 96-97	Third year 96-97	Fourth year 96-97	Fourth year 95-96
Time of entering university	1995	1994	1993	1992
Number	200	75	150	70

The University of Hochiminh City uses the two-phase system for student administration: the first phase includes the first two years, in which students are taught basic science knowledge; the second phase includes the third and fourth years, in which students study in their major field. In the Chemistry Department, during the first and second year, students are taught basic science knowledge, such as mathematics, physics, and chemistry. The proportion of chemistry is about one-fourth in the first year and one-third in the second year. At the end of the second year, some good students (based on GPA's) are automatically transferred to the third year, while the others have to take the transfer examination. Students who pass this examination are allowed to go on to the third year. The ones who fail are expelled from the university. In the third and fourth years, students take mostly chemistry courses. In the second semester of the fourth year, qualified students (based on GPA's) are allowed to do a research project as a fulfillment for their degrees. The other students must write the national examination in order to graduate. All of the evaluations of students' achievement are based on their performances on the course examinations. Students are allowed a second chance to take the course exam, if they fail the first writing. Students who fail both times have to repeat the course. The course instructor has the authorization of making and grading course examinations. The University and Department do not interfere with how the tests are made and graded. In this context, course examinations have great effects on the teaching and learning process in the Department.

In this study, fourth-year students of the 95-96 academic year were involved in the pilot study, which was conducted from June, 1996 to August, 1996. These students graduated in mid-August 1996. The main study involved students of second, third, and

fourth year of the 1996-1997 academic year. Since this study required students to have experience in the testing process at the university, first-year students were not included in the study.

The teaching staff includes 40 professors, lecturers, and teaching assistants. The teaching experience ranges from 30 years to 2 years, while over 20 people have 15 or more teaching years. In the Vietnamese university system, good students who meet the criteria of the institute after graduating are chosen to work as faculty members in the institute and are trained further. They start with the position of Teaching Assistant (TA). Depending on their performance on the job, they will become lecturers and professors. Professors and lecturers are in charge of teaching, making tests and grading for their own courses. The TA's job is teaching in the tutorial and lab courses; they are not allowed to make or grade course exams. In the testing process, the teachers have full authorization in making tests, administering the tests and grading the papers. The Department does not interfere with the teachers unless there is an appeal from a student, which rarely happens.

In this study, the teachers are categorized into senior teachers, who have over 10 years of teaching, and junior teachers, who have less than five years of teaching experience. Senior teachers include professors and lecturers who teach their own courses, make and use their own tests. Junior teachers are TAs, who do not teach the large class and are not in charge of making tests.

The Context: Advantages and Disadvantages of the Study

As mentioned earlier, the university system of Vietnam is in a transition period from an annual system to a credit system. In 1996, several universities, including the

University of Hochiminh City, were merged into one National University. This led to changes in personnel and curriculum in the system. In this context, educational studies, such as this one, are encouraged in order to find better ways to manage the system. As a result, this study received a great deal of support from administrators and teachers in the university. On the other hand, because of the changing situation, most teachers have been worrying about their positions in the new system. This may limit their contribution to the study.

Research Procedure

The study was conducted in the following steps.

Developing the questionnaire.

- Making "raw questionnaire."
- Piloting the raw questionnaire.
- Refining the questionnaire.

Developing the interview framework and questions.

Conducting the survey.

Conducting interviews.

Analyzing the results.

Developing the Questionnaire

Many studies have shown that the way students study is greatly affected by their understanding of the testing process, as well as their perceptions about the current situation of the process. These three aspects (studying style, understanding, and the testing process) are closely related. Only when the students understand the benefits of testing, and only when the testing process is functioning properly, can the problem of "studying for the test" and shallow-studying be prevented.

The three above aspects are the main objectives of this investigation study, therefore the questionnaire was designed in order to reflect:

- Students' understanding about the testing process.
- Students' perceptions about the current uses of the tests.
- Students' ways of studying.

The questionnaire was based on the framework of the National Grade Survey conducted by Milton et al. (1986). Items for the questionnaire were either selected and adjusted from the original survey, or developed by the researcher.

In order to find the appropriate questions for the questionnaire, informal interviews were conducted with students, alumni, and faculty members of the Chemistry Department. The interviews happened as normal conversations between the researcher and the interviewees, who did not know in advance that they would be interviewed. Most of the interviews took about 10 to 20 minutes. After the interview, the interviews were asked for permission of using their opinions for the study. The following are some ideas that were taken from interviewing 15 students, 6 alumni, and 5 faculty members.

Students

- I do not think much about the exams. I don't see any problem, I study well and always get good marks.
- The exams ask for too much memory and do not require problem solving skills.
- There are so many students who do not study at all and still pass the exams, they even sometimes get better grades than the ones who study hard.
- I know many students who got good marks by cheating.
- The teachers do not seem to care about what they give us on the exam.

Alumni

- I was a C student but now I have a better job than many A students in our class. To me, grades mean nothing.
- Students now seem have to study much more than we did before.

Faculty

- Students seem to be so lazy these day. All they want to do is to pass the exams and get out of the school.
- I do not like to see students fail. Anyway only the good ones get good marks.
- You need to remember a lot to be a good scientist.
- It does not matter how much you can remember, the matter is how to think.

From the above ideas, the raw questionnaire was formed which included 52 Likert-scale items. The questionnaire also had two open-ended questions that invited

students to express their ideas in their own words about what they think about the current testing process. These two items also helped the researcher to find more reasonable items to put into the final questionnaire. Students were also invited to make comments on whether or not the wording of the study was appropriate, what items may cause misunderstanding, and what types of format they preferred.

Piloting the Raw Questionnaire

The pilot study was conducted in order to help the researcher check the validity and reliability of the questionnaire. It also gave information about the reaction of the students to the study.

The questionnaires were randomly sent to 30 fourth-year students in the Chemistry Department. Twenty-six out of thirty returned the completed questionnaires; most of them completed the two open-ended questions. This suggested that students were very interested in the study. The data were then analyzed. Items that caused confusion and misunderstandings were eliminated. From the data analysis and from the comments of the students, the questionnaire was refined to become the "official" questionnaire (Appendix A). This questionnaire includes 54 Likert-scale items, distributed in three subscales. In order to avoid "quick response" from the students, the items were put into both positive category, which favor positive attitude and negative category, which favor negative attitude. The item distribution is shown in Table 2.

Table 2: Questionnaire items.

	Positive	Negative	Total
Students' ways of studying	I d, e, g, h	I a, b, c, f IV a	9 items
Students' understanding of the purpose of testing	II1d, e, f II2 a, c, d, e IIIa, d, e	II1a, b, c II2 b, f III b, c	17 items
Students' perceptions about the current testing process	II 3 b II4d II5 b, c, d, e, f, g	II3 a, c, d, e II4a, b, c, d, e, f, g II5 a, h, i, j, k IV b, c, d, e, f	28 items

Interpreting of Table 2

Table 2 shows the distribution of questionnaire items in three subscales.

- Students' way of studying.

This subscale includes 9 items which ask students to express their ideas about their study approaches. These approaches range from merely studying for passing the tests to studying to master the knowledge. Four items: Ia, Ib, Ic, and If were put on the negative category because they reveal the negative approach to studying, which emphasize on coping with the course exams.

- Students' understanding of the purpose of testing.

In this part, students were asked to express their opinions on how they perceive the functions of testing should be. Students were found to have good understand of the purpose of testing if they favor the ideas that the function of testing are, facilitating the learning process, helping refine the teaching process, giving useful feedback to students, as well as helping students to identify the problem in their studying. Therefore items II1d, II1e, II1f, II2a, II2c, II2d, II2e, IIIa, IIId, and IIIe, which ask students about the positive function of testing, were put in the positive category. The other 7 items were in negative category because they reveal the negative functions of testing such as, forcing students to study or sorting students.

- Students' perceptions about the current testing process.

Through the pilot study, it was noticed that students perceived the current testing process have many problems that include, memorization, lack of test quality, and cheating problem. The items in this subscale ask students about their thinking on test validity, test quality, test fairness, and the cheating problem at the university. Students are required to give ideas on, what factors can affect their exam results; how accurate their understanding of the courses have been evaluated; whether or not the tests are of good quality; and whether or not they think cheating a problem in the current testing process. The positive items include positive statement about the testing process such as: "most of the test reflects correctly the course objective that has been stated by the instructors," "tests are marked fairly," or "important factor that make students get high marks in the exam include deep understanding of the course." The negative items, on the other hand, are statements that focus on the bad side of the testing process such as: "students who do not

understand the course content still can get good marks," "many students cheat in the exams," "most of the tests just asks about the simple facts (that student have to memorize)."

Conducting the Survey

In the second month of the first semester of 1996-1997 academic year, the questionnaires were sent to students in their second, third, and fourth year of study in the Chemistry Department. The questionnaires were distributed and collected through the class representatives of each class. Students could also return the questionnaires directly to the researcher through the Department mail box. Students were ensured that their responses would be kept anonymous and could not be used to make any evaluative judgments against them. The warranty letter from the researcher to the student was attached to each questionnaire booklet.

Teacher Interview

The interviews were conducted on a one-on-one basis between the individual teacher and the researcher. At first, the researcher contacted the teacher to ask for permission to perform the interviews. Time and location of the interviews were then arranged between the two. The interviews usually occurred at the home or at the office of the teacher. The teachers were ensured that their ideas were kept confidential and were used only for study purposes. The interviews were conducted in the form of informal conversations in which the researcher raised questions to focus on the topic of testing at the university. There were no tape recordings made during the interviews. Teachers' ideas

were recorded by note-taking during the interviews or were rephrased by the researcher after the interviews.

Questions that were asked by the researcher during the interview included:

- Please let me know your way of making tests? Why?
- Based on what criteria, do you grade the students' papers? Why?
- What do you think about the testing process in your department at this time?
- Is it good or not? Why?
- Is there any problem that need to be considered? What are the causes of these problems?
- In your opinion, how should the testing process proceed?

Depending on the on-going process of the interviews, the order and the wording of the questions might be changed or the questions might be repeated or probed.

Data Analysis Technique

Because this is an exploratory study, most data analyses are descriptive using both qualitative and quantitative techniques. The interview transcripts and free response questionnaire items were treated as qualitative data, while the multiple-choice responses in the questionnaires were treated as quantitative data.

For the quantitative data, the frequency and percentage of responses were calculated for each of the items. The scores of students' understandings and students' perceptions were manipulated for all groups of students.

During the pilot study it was noticed that there have been some differences in the perceptions among students due to differences in their capability, gender, and time spent in university. Therefore, the study also made comparisons between groups of students. Students' perceptions about testing were compared by gender, year of study, and grade point average. The students were categorized into A, B, and C students based on their GPA's (Table 3).

Table 3: Student Ability Groups (based on GPA's)

GPA*	greater than 7.0	6.0 to 7.0	less than 6.0
Grade	A	B	C

Following is the scoring scale that was used to calculate the item score from the responses.

Table 4: Scoring scale.

Negative Items	Positive Items	Score
1	5	1
2	4	2
3	3	3
4	2	4
5	1	5

* In Vietnam, Grade Point Average (GPA) is based on scale of 10.

Chapter 4

Results

This chapter presents the data that were collected in the study together with the data analysis.

The Student Survey

Collecting Data

The survey began in mid-September and ended in mid-October, 1996. Two hundred fifty copies of the questionnaire were sent to students, 178 were returned, of which 164 were usable. The other 14 were either incomplete or incorrectly answered, and therefore could not be used. Table 5 shows the distribution of questionnaires sent and returned.

Table 5: Distribution of questionnaires sent and returned

Student	Sent	Returned	Useable	Return Rate
Fourth year	100	75	70	0.75
Third year	50	39	36	0.78
Second year	100	64	58	0.64
Total	250	178	164	0.71

The survey process went rather smoothly with the students of fourth-year and third-year, who took the same courses most of the time. It is note worthy that these two classes had two representatives and the students of these two classes were former students of the researcher. This may have had a big impact on the high return rate of the questionnaires. The second year students, on the other hand, have quite different characteristics from the fourth and third year students. They are under the administration of a different school (College of General Studies). They do not have official class

representatives and their students may take different courses. These factors made it difficult to administer and collect the questionnaires from them. As a result, the return rate of the questionnaire is lower.

From the returned 164 questionnaires, the percentage of responses for each item was calculated for all students, as well as for all sub-groups: female students, male students, second year students, third year students, fourth year students, "A" students, "B" students, and "C" students. The results are shown in Appendix B. Also the mean score for Test understanding, and Perceptions about the Test were calculated for each group of students. The results are shown in Appendix C.

Students' Ways of Studying

Students' strategies for studying seem to be very positive when over 80 percent chose mastering the main ideas and principles of the course as their way of studying, Only 30 percent of the students thought that memorizing course material is a good way of studying. However, students still paid much attention to coping with the course exams. Nearly half of the students admitted that they always study only the content they think will be covered in the final exams. Only ten percent of students stated that they do not study just to pass the exams. Second-year students seemed to be more exam-oriented than third- and fourth- year students, and, not surprisingly, the C students are people who paid less attention to passing the course exams.

Students mostly studied course textbooks and lecture notes only. They felt more comfortable discussing the course material with friends (76 percent) than with the course instructors (12 percent).

Students' Understanding of the Purpose of Testing

At first blush, one might consider that a 3-way ANOVA is warranted in the data analysis to find if there are interactions between these groups. However, because of the relatively small sample size and the fact that the cell sizes vary, three separate one-way ANOVA tests were performed.

There were no differences found between the level of understanding of students in the different groups. Table 6 shows the analysis of variance for students' understanding of the testing process.

Table 6: ANOVA for students' understanding of the purpose of testing.

Source	Sum-of-Square	DF	Mean Square	F-Ratio	P
Gender	01253	1	0.153	2.022	0.157
Error	12.142	160	0.076		
Class	0.197	2	0.098	1.302	0.275
Error	12.182	161	0.076		
Grade	0.095	2	0.047	0.622	0.538
Error	12.284	161	0.076		

The students show a good understanding of the purpose of the testing process. Over 80 percent agreed that the test results gave them good feedback on how well they studied for the course. Half of the students also felt that tests can help instructors refine their teaching.

The characteristics of a good test such as "requiring students to think critically," "assessing correctly the ability of students," and "asking students to use course knowledge in real application" are advocated by the majority of the students. Only 10

percent of students thought that a good test requires students to reproduce factual detail of the course, and only 18 percent wanted a test to ask simple questions only.

The free response items also expressed students' good understanding of the purpose of the testing process. The students pointed out that:

> The exams help me to study better by letting me know how good or bad my studying is.
>
> The good test is the one that asks students to show their real understanding of the subject matter, not one which requires students to memorize a bulk of useless facts.
>
> Good exams require students to think, not to rote learn.
>
> I am interested in exams that test students on all the main subjects of the course. I am sick of the kind of tests that ask just about the highlights stated in the last class.

Students' Perceptions about the Testing Process

Measuring students' perceptions about the current use of tests is the main purpose of the study, therefore nearly half of the items were designed for this purpose. The students' perceptions were examined from four main aspects:

- How students think about the fairness of the tests. (Items I5e, I5f, I5g, I5h, I5i, IVc IVd)
- How students think about the validity of the test, that is, do they think that the tests really measure the students' understanding of the course? (Items II3a, II3b, II3c, II3e; II4b, II4c, II4d, II4e, II4f, II4g)
- How students think about the quality of the tests. (Items II3d, II4a, II5a, II5b, II5c, II5d; IVb, IVe)
- How students respond to the problem of cheating in the examination process. (Items II5i, II5k; IVf).

Fairness of the Test

Overall, the students' scores on the fairness of the tests was only slightly above the scale midpoint of 3. This means that many students did not believe that the tests are fair, as revealed by items II5f and IVc. When being asked directly about whether or not the tests are fair, almost 50 percent of students stated that it was not the case, 30 percent were confused, and only 20 percent believed that tests are fair. To make the matter worse, only 30 percent of the students agreed that the test results reflect the real understanding of students.

Only a few students (14 percent) found that the unfairness of the tests was the consequence of the teachers' mistakes when marking the papers (item II5e). The students criticized the tests themselves, not the teachers who made and marked those tests. This is one of the special characteristics of Vietnamese students, who always respect their teachers even when the teachers make mistakes.

Looking at the bright side of the matter, the majority of the students believed that good students, who have a deep understanding of the course, always get good marks. Only about one tenth of the students believed that students who do not understand the course still get good marks.

There is no difference found between groups of students, regarding their gender, year of studying, and capability on their perceptions about test fairness. Table 7 shows results of the analysis of variance for students' perceptions on test fairness.

Table 7. ANOVA for students' perceptions on Test Fairness

Source	Sum-of-Square	DF	Mean Square	F-Ratio	P
Gender	0.703	1	0.703	2.529	0.114
Error	44.486	160	0.278		
Class	1.641	2	0.820	3.000	0.053
Error	44.030	161	0.273		
Grade	0.310	2	0.155	0.550	0.578
Error	45.361	161	0.282		

Students' responses reveal a serious problem in the testing process of the University: students perceive they have been unfairly evaluated. This causes harmful effect on the teaching and studying process. Although students did not directly criticize the teachers, they somehow expressed their frustration by critiquing the quality of the testing process. To identify the problems of the tests, we need to look closer at the tests themselves.

Quality of the Tests

The common problem with tests, in general, is their lack of validity. Many studies (Milton ,1982; Snyder, 1971) have proved that often tests are constructed without serious consideration for the objectives they are supposed to measure, or the test makers do not have a clear understanding of what they want to measure. As a result, the tests became vague, off-target, or became a tool that merely measures students' ability for memorizing course materials.

Students' responses in this study represent a similar situation. The tests that have been used in the Department appear to be too memory-oriented, when almost half of the

students agreed that having good memory and/or memorizing the lecture notes is the best way to get good marks for the exams. However, from the students' point of view, the quality of the tests is still acceptable. Almost 70 percent of the students agreed that most of the tests reflected correctly the course objectives stated by the instructors, and over 60 percent found that tests ask them to think critically.

This viewpoint is shared by all groups of students, although there is little difference between second-year students and students of third- and fourth-year. The second year students are somewhat more negative about the quality of the tests than the senior students. Table 8 shows the difference between the three groups in their perceptions of the quality of the tests.

Table 8. ANOVA for students' perceptions on Test Quality

Source	Sum-of-Square	DF	Mean Square	F-Ratio	P
Gender	0.024	1	0.024	0.110	0.740
Error	34.671	160	0.271		
Class	1.896	2	0.948	4.614	0.011*
Error	33.081	161	0.205		
Grade	0.787	2	0.394	1.854	0.160
Error	34.189	161	0.212		

* $P < .05$

Validity of Tests

Students' scores on the validity of the test, despite being rather positive (M=3.4), appear to be not enough to ensure that they perceive the tests are valid and reliable. Although a deep understanding of the course is accepted by over 90 percent of students to be an important factor regarding success in the course exams, there are so many other

factors that contribute to a good performance in the exams such as luck, test-taking experience, ability to predict the test questions, and cheating.

The validity of the tests seems to be seriously violated when over 20 percent of the students believed that good performance in the exams is the result of luck, while nearly half of them thought that luck is not the factor influencing the exam results. Also, over 35 percent of the students agreed that an ability to predict the exam questions and having test-taking experience were what counts for good exam results.

These results give a serious warning about the misuse of tests. It is not clear that the tests measure correctly what they are supposed to measure: student understanding of the course. They may also measure students' skill of coping with the tests.

There is a significant difference between second-year students and third-year students in their perceptions on the validity of the testing process. The former are more doubtful about the test validity (score of 3.27) than the latter (score of 3.58). No other difference is found for other groups of students. Table 9 shows the results.

Table 9. ANOVA for students' perceptions on Test Validity

Source	Sum-of-Square	DF	Mean Square	F-Ratio	P
Gender	0.013	1	0.013	0.064	0.801
Error	33.536	160	0.210		
Class	2.226	2	1.113	5.698	0.004*
Error	31.454	161	0.195		
Grade	0.451	2	0.225	1.093	0.338
Error	33.229	161	0.206		

* $p < .01$

The post-hoc test shows there is a significant difference between group C2 (second year students) and group C3 (third year students).

From the scores on Test validity, it is noticed that the larger the group population, the lower score they received (Table 10).

Table 10. Mean score on test Validity of each group

Group	Second year	Fourth year	Third year
Number of students	200	150	70
Score	3.269	3.417	3.538

It is also noticed that the larger the population of the students, the harder the testing process is to manage. Tests managing may play a big role in lowering the validity of the tests. Students' responses somehow reveal this situation. Over 90 percent of students agreed that "students have to take so many course exams in a short time so the quality of testing is not good" and "the testing process needs to be more disciplined."

During the informal interview with the researcher many students were also very concerned about the way tests were given to them. They expressed:

> We know that it is not good to study just to cope with the tests, but we have no choice. We have so many tests coming up in a very short time. We have to rote learn and cheat to survive. I hate to admit it but I feel I know nothing about the course even though I passed the exam.
> I am so frustrated. I studied like crazy and still got bad results in the exams, while some guys did not study at all and still passed the exams with the photocopied materials they brought with them into the examination.

The students, while showing no criticism of their teachers and just a little on the quality of the tests, strongly criticized the way testing is managed. Cheating appears to be the most serious problem that affects the process. When asked to express their ideas regarding the statement, "Many students cheat in the exams," almost 40 percent of the students accepted that it is the truth while only 27 percent disagreed. Most students (over 60 percent) made excuses for the cheating problem by pointing to the heavy workload

they had to carry and the undisciplined testing process. To them, too much to study makes students cheat, and the process seems to encourage cheating by making no or little punishment for students who cheat. These ideas were clearly expressed by the free responses of the students in the questionnaires.

> There are many people, who do not study at all, but by cheating they get good marks in the exams. Something must be done about this.
>
> Cheating becomes so easy to do that many students believe that they do not need to study to pass the exams.
>
> In my opinion, over 80 percent of the students who pass the course, do not understand the course materials.
>
> The rooms used for examination are usually too small. You may feel like you have won a lottery when you come into an exam and have a seat next to a good students.
>
> The process is so carelessly managed, there are always students cheating in the exams. This thing discourages students who want to study seriously.

There is no difference found between the students in their perceptions of the cheating problem regarding students' gender and GPAs. However there is a significant difference between students of different classes. Table 11 shows the analysis results.

Table 11. ANOVA for students' perceptions on Cheating

Source	Sum-of-Square	DF	Mean Square	F-Ratio	P
Gender	0.466	1	0.466	1.441	0.232
Error	51.406	159	0.323		
Class	2.580	2	1.290	4.182	0.017*
Error	49.354	160	0.308		
Grade	0.280	2	0.140	0.434	0.649
Error	51.655	160	0.323		

* $p < .05$

The post hoc test shows a significant difference between students of third year and second year. The students shared the low score on perceptions about cheating: overall score: 2.44, second-year students: 2.30, third year students: 2.64, fourth year students: 2.45. The well-below-average scores show that students took this problem very seriously. Here again we see the pattern that was mentioned before: the larger the student population, the more negative the scores. It again shows that the way the testing process is managed plays a big role in the misuse of tests in the departments.

Summary

Students showed good understanding of the testing process. Although they reported productive ways of studying, students found themselves victims of the carelessly managed testing processes. Although students found no serious problem with the teachers and the tests themselves, they were really concerned about the validity of the testing process. This perceived lack of validity proved to be the main factor that forces students to use strategies other than seriously studying to cope with the examinations.

Teacher Interview

In this part, the focus of the analysis is on how the testing process looks from the view point of the teachers.

I intended to interview five junior and 10 senior faculty members of the Chemistry department. I ended up interviewing all five junior members but only four senior members. The reason that made senior members not willing to participate in the study may be because there had been a lot of change in the University due to the restructuring of higher education, and these changes may have caused faculty members to be reluctant to voice their opinion.

However, with nine interviews, it was enough to make a brief description about the perceptions of teachers regarding the testing process. The teachers' ideas will be presented and analyzed based on the framework of three main objectives:

- Teachers' ways of making tests and using test results.
- Teachers' perceptions of quality of the testing process.
- Teachers' perceptions of factors that affect the testing process.

Teachers' Ways of Making Tests and Using Test Results

Because junior teachers are not in charge of making and using tests, this part only presents the experience of senior teachers. All of the teachers responded that they had not studied test-making skills, nor had they ever taken any course on making tests. They believed that their test-making skills were formed from their own experiences as students, from their teachers, their colleagues, and from their teaching experience. They believed that "when you teach something, you will automatically know what to ask on the test."

When being asked what they think about making a good test, the teachers all agreed on the following points:

First, the good test must cover the main objectives of the course.

Second, the test must be clear so students all understand what the teacher wants to ask. There should not be tricky questions that make students confused in the test.

Third, the test should not be too easy or difficult. Usually the teachers preferred tests that have two parts. Part one covers the general objectives of the course, which can be completed by normal students. Part two includes questions that require more creative thinking from students. This part is used to identify outstanding students.

The teachers were unable to answer precisely, "What level of difficulty is enough for the test?" They thought that it was impossible and unnecessary to measure precisely the difficult level of the test before giving it to the students. They believed that with their experience, they can decide how difficult would be difficult enough for their tests.

There was one aspect in which the teachers did not share the same idea. That was the problem of the fact-oriented test versus the problem-solving-skill-oriented test. Although they all agreed that students need to know both facts and problem solving skills, one teacher strongly criticized fact-oriented testing. He stated:

> What students need to know is not remembering the common facts. They are all written in books. What they need to know is how to use these facts to solve the problems. That why I always permit my students to bring with them whatever books they want to the exams.

The other three teachers did not see any problem with asking students facts in the exams. They believed that, "Chemistry is a science of facts. If you can not remember facts, you can not study chemistry at all."

Beside the conflict between facts and solving skills, the teachers seemed to be very pleased with their method of making and using tests. They also agreed that the test results help them to improve their next tests as well as to make adjustments to their teaching because the feed backs help them see "what part of the course students feel confused about."

Teachers' Perceptions of the Quality of the Testing Process

There is a big difference between opinions of junior and senior teachers regarding the quality of the current testing process in the Department. The junior teachers were very concerned about the low quality of the tests. To them, many of the tests were not good enough to be used. They also indicated that the disorder in managing the testing process had a lot to do with the low quality of testing. The senior teachers, on the other hand, felt very comfortable with the testing process. To them, there were only minor problems that needed to be fixed to improve the quality of the process; most of the problems belonged to the management of the process, not the quality of the tests themselves. The teachers agreed that some teachers prefer fact-oriented tests, while others prefer problem-solving

skill oriented tests. In general, this is not a problem as long as the tests represent correctly the objectives of the course. One teacher pointed out:

> I know there are many people who do not like tests that ask for a lot of memorizing from students. Personally I do not see any problem with it. Chemistry is an experimental science, you need to remember a lot of facts to master it.

It may be useful to elaborate on the difference between junior and senior teachers. The junior teachers were all former students at the Department. They graduated only two to five years ago. Their perceptions about testing may be influenced greatly by their experience as students. Moreover, their relationship with students was closer than Senior teachers, because they teach mostly small groups of students in tutorials or in lab courses. Therefore they may know a great deal about the effects that testing has on students. As a result, they strongly expressed their criticism about the low quality of testing in the Department.

The senior teachers, on the other hand, have been making and using tests for a long time and rarely received any complaints from the students, from whom they maintain quite a social distance. The result is that teachers rarely know about the consequences that testing causes to students. This may be the reason why they saw little or no problem with the testing process.

Teachers' Perceptions of Factors that Affect the Testing Process

Junior teachers saw problems coming from the teachers, the students, and also the administration. Senior teachers admitted to problems coming from students and the managing process only.

All five junior teachers made strong statements on the misuses of testing. To them the low quality of testing are the consequences of poor design, negative attitudes, and heavy workloads, as the following excerpts attest:

I found many awful-written tests. Even I don't understand what they are about.

In the tutorial, I taught students to master the main principles of the course, and the exam asked about some tricky facts. I ended up being blamed by the students.

Students nowadays seem not to be interested in studying like we did before. In the tutorial, it seem that the only way to make them pay attention is saying, "This material will be asked in the exams."

"Pass the exams, get the degree" that I think what they are studying for.

Many students told me that they would cheat in the exams if they had chance, because there was no way for them to study for ten exams in less than two weeks.

I feel sorry for my students. They spend most of the time in the lecture room. I don't know how they can find time for self study and do home work.

I'm tired of teaching students knowledge that they would have known from the previous courses. I wonder how those students could pass all of these courses.

Cheating has become very common in students now. You can find students cheating in every exams. Something need to be done from the administration level like putting more discipline into the process. We, teachers, can not do anything about it. Our job is teaching, not punishing students.

Many teachers want to prove that they are generous by letting most of their students pass the exams. This generosity really hurts the student quality of the department.

The senior teachers seemed to be more careful when expressing their ideas than their junior fellows. They did not want to make comment on others teachers' jobs. Although they also found that the "generosity" of other teachers sometimes causes difficulty in their teaching, they did not think that it is a big problem. They even admitted that they became easier with students after time:

I used to be very difficult with my students. They even called me "students killer". But after time, I became more easy with them. I let more students pass and gave them better marks. Maybe because I started to think that encouragement

> is more useful than punishment. However, don't think that all my students pass my course. The bad ones still fail.

The senior teachers also were concerned about the cheating problem in the testing process. To them, this problem can be solved by increasing the discipline level of the process and by changing the test format. Three out of four senior teachers believed that changing from closed-book exams to open-book exams or multiple-choice-question exams can largely reduce the number of students cheating.

The senior teachers also complained about the quality of students and the attitude of students toward studying. One stated:

> Many students express their irresponsibility in studying. It's their job to study. We cannot study for them.

The teachers all agreed that the workload is too heavy for the students. But to them, there was no easy way out of this problem because "when you have not enough teaching and learning materials and you still want your students to get enough knowledge, lecturing more seems to be the only answer."

Responding on the issue of what factors influence the use of tests, the senior teachers all agreed that it was their responsibility to keep trying to improve the tests. They wanted to help students study better by giving them correct evaluations. Otherwise, they were under no pressure from the university, as well as from their colleagues, to improve their use of tests.

To the teachers, it is unreasonable for students to use their heavy workload as an excuse for not studying well because "they, the students, must feel happy to have the chance to learn more."

There is one factor that both senior and junior teachers believed to be the most serious obstacle for not only the testing process but also the whole teaching-learning process in the university. It is the way "the system" has been run. The teachers expressed

that they have been doing their best to keep the quality of teaching and learning from declining but unless some innovation happens in the system, their efforts would not be enough.

Summary

The teachers expressed their ideas and understandings on making and using tests. They believed that their teaching experience and intuition helped them to make good evaluation judgments about their teaching and their students.

The junior teachers revealed more of their feelings about the problems inherent in the testing process. They saw these problems coming from the following reasons:

- Teachers do not take seriously the task of writing quality tests.
- A negative attitude of students toward studying.
- The heavy work load on students.
- The testing process is being misused.

The senior teachers, on the contrary, thought that these were just minor problems. They believed that tests have been used quite well in the Department.

However, both senior and junior teachers found a serious problem with the testing process, and also the whole process of teaching and learning in the university: the improperly functioning system of higher education.

Chapter 5
Discussion and Recommendations

In this chapter the findings of the study are summarised and discussed. Some recommendations are made about what should be done to improve the testing process in universities

Summary and discussion of the findings

The study results show that students have a good understanding of the testing process. They also have clear understanding about what style of learning would be good for them in terms of gaining knowledge. However what they do with their learning seems to contradict what they think should be done. Most of the students agreed that rote learning and cheating has become popular in the school, but the university seemed to pay no attention to this problem. This situation raises a question: How could students choose to participate in approaches to learning that they know are not good? Students have their own excuse for this. To them, the heavy workload and the poor assessment process in school forces them into an approach to learning they do not agree with. In order to "survive" they have no other choice. This viewpoint is not totally shared by the teachers, especially the senior ones. They accuse the students of being lazy and irresponsible about their studying. However, students and teachers shared the common viewpoint that "the system" is to blame for letting the problem happen.

By analysing students' and teachers' ideas when considering the context of the institution, it was found that all the three parties- students, teachers, and "system"- have a share in responsibility for generating the problem.

The "system" is seen to be responsible for making the workload so heavy for students and for the careless management of teaching-learning processes. Recently, due to the rapid growth of the economy and technology, there is a need for more knowledge of modern science and technology, which the old curriculum of the university is not able to provide to the students. As a result, the curriculum was upgraded to meet the demand. Because of the lack of manpower as well as facilities, the upgrading process has been conducted in an unorganised manner: many new courses were added, while the old ones remain unchanged. This led to a situation where students have to take more courses in order to get the degree. At the University of Hochiminh City, students are required to complete approximately 200 credit hours (compared to 120 credit hours in most of the Western universities) for the Baccalaureate degree. Besides the problem of overload, "the system" is also blamed for the lack of discipline in the university, especially in the testing process. This lack of discipline has led to a situation where students consider cheating as a relatively risk-free strategy for passing the exams.

For a long time, Vietnamese teachers have been used to the old routine of university teaching with small classes, few courses, and no problem with student quality (Le Thac Can, 1991). With the changing university context, serious problems have arisen. Reasons that lead to this situation have been pointed out in the study.

First, it is the lack of educational knowledge within the teaching staff, in this case related to assessment. As a result, teachers tend to produce tests that have not enough validity and reliability. These tests have negative effects on the teaching learning process by giving students misleading objectives for the course as well as making students

frustrated about being wrongfully evaluated. Besides, the poor tests give teachers no valuable feedback to improve their teaching.

The second reason lies in the lack of communication between students and teachers. This prevents teachers from knowing the effects, both good and bad, of their teaching on students. Lack of communication in the testing process means that students and teachers look at the course objectives in two different ways: teachers fail to make students understand their goals, and students fail to interpret correctly teachers' ideas. As a result, the testing process, as it is currently conceived and practised in Vietnam, is unlikely to achieve its intended objectives: evaluating correctly students' understanding of the courses.

The third and also the most dangerous reason that causes the problem has been identified as teacher frustration over "the system." Because of this frustration teachers gradually lose their interest in teaching and spend less effort on improving their teaching and pay less attention to on the effects they have on students.

Among the three parties responsible for problem associated with the testing process, students seems to be the most innocent. Most students believe themselves to be victims of the process. However it is not wrong to say that they are responsible for making the problem more serious. Many students agreed that, instead of helping the university to solve the problem, students tend to take advantage of the poorly functioning system to get their degree with less effort. The idea of "getting the degree without studying" has become popular with students, and cheating is a typical expression of this viewpoint. Looking at the bright side of the problem, there is still a majority of the

students who believe that this attitude is only a temporary one, and that it can be changed easily when the system is managed effectively.

Recommendations

From the discussion above it is clear that in order to solve problems inherent in the testing process, there is a need to make changes not only in the way the process is managed, but also in the perception of teachers and students.

Following are recommendations of what should be done to improve quality of the testing process in the university:

- Increase discipline in the testing process.
- Use alternative testing methods such as open book exams, multiple choice exams.
- Provide teachers with test-making knowledge by means of in-service training.
- Use students' course evaluation questionnaire as a source to provide teachers with students feedback, as well to make students more involved in the teaching-learning process.
- Consider pedagogical ability as one criterion for choosing faculty members.
- Establish a system of teaching evaluation to evaluate the teaching process of each teacher. Give rewards for good teaching and good teachers.

These recommendation are made in order to move from a short term strategy to a long term strategy. The first and easiest thing needed to be done is to enhance the discipline level in the testing process. This action can help reduce the cheating rate in examinations, therefore increase the fairness of the testing process. Alternative methods

of testing, such as open book and multiple choice exams can also be used for this purpose. Second, the teachers need to be equipped with proper educational knowledge and test making skills. This task can be done by providing teachers with in-service training courses about testing and evaluation. This is a difficult and time-consuming process, but it can help solve the problem. Good knowledge of test making and evaluation can help teachers increase validity and reliability of their tests. This could help prevent students from using negative approaches to learning. Using students' course evaluation questionnaire is a good way to enhance communication between students and teachers. Teachers should be encouraged to make their own student-course evaluation-questionnaire. Through this process teachers can get useful feedback from students to help them make adjustment on their teaching as well as testing. Students on the other hand, can feel more engage to the teaching-learning process when knowing that their ideas are useful for the teachers. For the long term strategy, considering pedagogical ability as one criterion for choosing faculty members can help the university to develop teaching staff that is capable of making correct educational judgement. This can greatly help to increase the effectiveness of teaching and learning in the institute. Also, having a teaching evaluation system can help teachers to improve their teaching method. Rewards for good teaching that are celebrated widely in the community can encourage teachers to do better. These actions can help reduce teachers' frustration toward the higher education system.

Significance of the Study

As mentioned earlier, educational research is rather new to the Vietnamese higher education system. For a long time, educators in the system have struggled with the problem of identifying what the troubles are and where they come from. Usually, the troubles are seen coming from the macro level, therefore much effort has been spent to restructure the system. Little consideration is paid to improving the teaching-learning process, which in fact is the core of the university. The findings of this study can be used as a "wake-up alarm" to help educators become aware that, in order to improve "the system," the first and foremost thing that must be done is to pay more attention to teachers, students, and teaching-learning processes. However, this study has examined only one faction of the teaching-learning process: the process of testing. There is a need for more studies in order to find better ways to improve the quality of teaching-learning processes in the university system.

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Appendix A

Questionnaire on Students' Perceptions of the Testing Process

UNIVERSITY OF HOCHIMINH CITY
Faculty of Chemistry.

Dear students,

We are conducting a study of the use of tests in the university classroom in order to improve the teaching and learning process in our university.

Attached is a questionnaire that can give us your opinion about the testing process in your university, and what should be done to make it better.

Because your opinions are very valuable to us, please take time to complete this questionnaire and send it back to us.

We would like to inform you that your participation is absolutely voluntary. You can withdraw from the research at any time without consequence. All of the information you give us will be kept anonymous, and cannot be used to make any evaluation judgement against you.

If you have any complaints about this research, please contact directly Dr. Robin Barrow, Dean of the Faculty of Education, Simon Fraser University, Burnaby Canada. Telephone: 604-291-3395.

The research results can be obtained from Dr. Allan MacKinnon at the Faculty of Education, Simon Fraser University. Telephone: 604-291-3432.

We appreciate your time and co-operation and look forward to receiving your complete questionnaire.

Sincerely,

Nguyen Quoc Chinh

INSTRUCTION

To answer, circle the chosen number.

Example:

Right	1	2	(3)	4	5	Choose number 3
Wrong	1	(2)	(3)	4	5	
Wrong	1	2	3	4	5	

To change the answer, cross out the old number and circle the new one.

Example:

Right	1	(2)	3	4	5	choose 2 instead of 3
Wrong	1	(2)	(3)	4	5	
Wrong	1	2	(3)	4	5	

QUESTIONNAIRE

I). Following are ways of studying that have been used by students in the university. Please indicate what methods you are using.

1- Always use	**2**- sometime use	**3**. Rarely use
4- Never use	**5**. No idea	

a)	Study only materials that can be asked in the exams.	1	2	3	4	5
b)	Study the previous course exam in order to predict the questions to be asked in the next exams.	1	2	3	4	5
c)	Try to memorize as much course material as possible.	1	2	3	4	5
d)	Do not memorize all of the content but try to master the main ideas and principles.	1	2	3	4	5
e)	Read additional material that is related to the course content.	1	2	3	4	5
f)	Read only the course text books and lecture notes.	1	2	3	4	5
g)	Discuss with a friend about the course.	1	2	3	4	5
h)	Discuss with instructors about the course.	1	2	3	4	5

Other ideas:

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II). Do you agree or disagree with the following ideas:
(use the scale bellow to answer)

1- Strongly agree	**2**- agree	**3**- No idea
4- Disagree	**5**- Strongly disagree	

1. In the University, testing is used to:

a) rank students.	1	2	3	4	5
b) select good students for further traning.	1	2	3	4	5
c) force students to study.	1	2	3	4	5
d) help instructors determine the effect of the teaching process.	1	2	3	4	5
e) help students see the strong and weak side in their learning.	1	2	3	4	5
f) help instructors understand the learning process of students in order to adjust their way of teaching.	1	2	3	4	5

g) Other ideas:

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2. A good exam must:

a) require student to think critically.	1	2	3	4	5
b) ask only simple questions.	1	2	3	4	5
c) assess correctly ability of students. (Give high mark to students who understand the course, and low mark for students who do not.)	1	2	3	4	5

d)	ask students to use course knowledge in real applications.	1	2	3	4	5
e)	contain all of the main ideas of the course.	1	2	3	4	5
f)	require students to reproduce many factual details of the course.	1	2	3	4	5

e) Other ideas:

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3. When a classmate gets high mark in a course exam, you may conclude that:

a)	S/he is lucky.	1	2	3	4	5
b)	S/he really mastered the course content.	1	2	3	4	5
c)	S/he has cheated in the exam.	1	2	3	4	5
d)	S/he has good a memory (to memorize all of factual details of the course).	1	2	3	4	5
e)	S/he has predicted correctly what question to be asked in the exam.	1	2	3	4	5

f) Other ideas:

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4 Important factors that make students get high mark in the exam include:

a)	ability to memorize.	1	2	3	4	5
b)	test-taking experience.	1	2	3	4	5
c)	ability to predict which instructor will ask which question.	1	2	3	4	5

d) deep understanding of the course.	1	2	3	4	5
e) cheating experience.	1	2	3	4	5
f) luck.	1	2	3	4	5
g) impression to instructor.	1	2	3	4	5

h) Other ideas:

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5. The testing process in your university can be described as:

a) Most of the test just asks about the simple facts (that students have to memorize).	1	2	3	4	5
b) Most of the test requires students to have not only memory of facts but the ability to think critically.	1	2	3	4	5
c) Most of the test requires students to use course knowledge in real application.	1	2	3	4	5
d) Most of the test reflects correctly the course objective that has been stated by the instructors.	1	2	3	4	5
e) Tests are marked fairly.	1	2	3	4	5
f) Test results reflect correctly the ability of sudents.	1	2	3	4	5
g) Students who get high mark are students who have adeep understanding of the course.	1	2	3	4	5
h) Students who do not understand the course content still can get high marks.	1	2	3	4	5
i) Usually good students do not get high marks.	1	2	3	4	5
j) Many students cheat in the exams.	1	2	3	4	5
k) Students have to study too much so cheating is	1	2	3	4	5

unavoidable.

l) Other ideas:

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III).Educational sudies have proved that exams have many effects on students. Using the scale below, please indicate your opinion about the following ideas:

1- Strongly agree	**2**- Agree	**3**- No idea
4- Disagree	**5**- Strongly disagree	

a)	Exams give students the chance to generalize the knowledge studied during the course.	1	2	3	4	5
b)	Exams force students to study.	1	2	3	4	5
c)	Exams cause bad effects on students'learning because most students study just for the test and not for knowledge.	1	2	3	4	5
d)	Exams give students feedback so they can adjust their learning.	1	2	3	4	5
e)	The competition to get higher mark help students study better.	1	2	3	4	5

f) Other ideas:

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IV). Following are ideas collected from students in your university. Do you agree or disagree with them. Use the scale bellow to answer.

1- Strongly agree	**2**- Agree	**3**- No idea
4- Disagree	**5**- Strongly disagree	

a)	Most students study just for the tests.	1	2	3	4	5
b)	Memorizing the lecture notes is the best way to get high mark in the course exam.	1	2	3	4	5
c)	The exams are not fair. Student who rote learn or cheat usually get better marks than students who study seriously.	1	2	3	4	5
d)	The instructors are so easy that many underqualified students still pass the courses.	1	2	3	4	5
e)	Students have to take so many course exams in a short time so the quality of testing is not good.	1	2	3	4	5
f)	The testing process needed to be more disciplined. Students who cheat must be seriously penalized.	1	2	3	4	5
g)	Other ideas:					

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V). Please let us know some information about yourself:

Gender: __ Male __ Female

Age : __ 17-20 __ 20-23
__ 23-26 __ over 26

Student of: __ 1st year __ 2nd year
__ 3rd year __ 4th year

Your GPA's of the last year:
__ less than 5.0 __ 5.0-6.0
__ 6.0 - 7.0 __ 7.0 - 8.0 __ over 8.0

Thank you!

Bộ Giáo Dục Và Đào Tạo
Đại Học Quốc Gia Thành Phố Hồ Chí Minh

Ngày ___/___/1996

Thân gửi các anh chị sinh viên,

Nhằm mục đích nâng cao chất lượng dạy và học trong trường đại học, chúng tôi đang tiến hành nghiên cứu ảnh hưởng của việc thi cử, đánh giá sinh viên đến quá trình học tập của sinh viên cũng như việc giảng dạy của giảng viên trong các trường đại học.

Kèm sau đây là bản thăm dò ý kiến sinh viên về thực trạng của việc thi cử trong trường đại học. Bản thăm dò ý kiến này sẽ giúp chúng tôi xác định được những ưu và khuyết điểm, từ đó tìm ra được những cách tốt nhất để cải tiến quá trình dạy và học trong nhà trường.

Chúng tôi rất mong có được sự cộng tác của các anh chị trong quá trình nghiên cứu này. Xin các anh chị vui lòng dành chút thời gian hoàn tất bản thăm dò ý kiến này và gởi lại cho chúng tôi. Chúng tôi xin đảm bảo những ý kiến của anh chị sẽ được sử dụng hoàn toàn với mục đích nghiên cứu. Những ý kiến này sẽ được giữ dưới dạng nặc danh, và không ảnh hưởng gì đến việc học tập của các anh chị.

Nếu anh chị có thắc mắc về việc nghiên cứu này, xin vui lòng liên hệ với Tiến sĩ Robin Barrow, Trưởng khoa Giáo Dục, trường Đại học Simon Fraser, Burnaby Canada theo địa chỉ:

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Kết quả của nghiên cứu có thể nhận được từ Tiến sĩ Allan Mackinnon theo địa chỉ:

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Telephone: (604)- 291-3432

Rất mong được sự cộng tác của các anh chị.

Người nghiên cứu,

Nguyễn Quốc Chính.

HƯỚNG DẪN

Để trả lời câu hỏi, dùng bút khoanh tròn **MỘT SỐ** được chọn trong **MỖI DÃY SỐ**

Ví dụ:

Đúng	1 2 (3) 4 5	Chọn số 3
Sai	1 (2) (3) 4 5	
Sai	1 2 ~~3~~ 4 5	

Nếu muốn thay đổi sự lựa chọn, gạch chéo chữ số đã chọn trước sau đó khoanh tròn chữ số muốn chọn.

Ví dụ:

Đúng	1 (2) ~~(3)~~ 4 5	chọn số 2 thay vì số 3
Sai	1 (2) (3) 4 5	
Sai	1 ~~2~~ ~~3~~ 4 5	

PHẦN CÂU HỎI

I). Trong trường đại học, sinh viên có nhiều cách học khác nhau. Sử dụng thang đánh giá sau đây xin anh chị cho biết cách học của bản thân mình.

1- Luôn luôn dùng	**2**- Thường dùng	**3**. Ít khi dùng
4- Không bao giờ dùng	**5**. Không có ý kiến	

a) Chỉ học những bài có thể có trong bài thi.	1	2	3	4	5
b) Nghiên cứu các đề thi trước để dự đoán cách ra đề thi của các giảng viên.	1	2	3	4	5
c) Cố gắng học thuộc lòng bài học càng nhiều càng tốt.	1	2	3	4	5
d) Không thuộc lòng tất cả các bài học mà chỉ cố gắng nắm vững các nguyên lý và định luật cơ bản của môn học.	1	2	3	4	5
e) Đọc thêm sách báo, tài liệu có liên quan đến môn học.	1	2	3	4	5
f) Chỉ đọc giáo trình và bài giảng của giảng viên trên lớp.	1	2	3	4	5
g) Thảo luận, bàn bạc với bạn bè về bài học.	1	2	3	4	5
h) Thảo luận, bàn bạc về bài học với giảng viên.	1	2	3	4	5

Ý kiến khác:

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II). Sử dụng thang đánh giá sau đây xin anh chị đánh giá các ý kiến sau.

1- Rất đồng ý	**2**- Đồng ý	**3**- Không có ý kiến
4- Không đồng ý	**5**- Rất không đồng ý	

1. Mục đích của việc thi cử trong trường Đại học là:

a) Xếp hạng sinh viên.	1	2	3	4	5
b) Lựa chọn các sinh viên có đủ khả năng và kiến thức cho các giai đoạn học tập tiếp theo.	1	2	3	4	5
c) Buộc sinh viên phải đọc tài liệu của môn học.	1	2	3	4	5
d) Giúp giảng viên xác định được hiệu quả của quá trình giảng dạy.	1	2	3	4	5
e) Giúp sinh viên thấy được những ưu khuyết điểm trong quá trình học để học tập tốt hơn.	1	2	3	4	5
f) Giúp giảng viên nắm được tình hình học tập của sinh viên, từ đó giảng dạy hiệu quả hơn.	1	2	3	4	5

g) Ý kiến khác:

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2. Một bài thi tốt phải có những tính chất sau:

a) Đòi hỏi sinh viên phải có khả năng suy luận.	1	2	3	4	5
b) Dễ đủ để cho tất cả sinh viên có thể đậu.	1	2	3	4	5
c) Đánh giá chính xác khả năng của sinh viên. (cho sinh viên	1	2	3	4	5

giỏi điểm cao, sinh viên kém điểm thấp).

d) Đòi hỏi sinh viên vận dụng những kiến thức đã học trong những bài toán thực tế. 1 2 3 4 5

e) Bao hàm các nội dung chính của môn học 1 2 3 4 5

f) Đòi hỏi sinh viên phải thuộc bài học một cách chi tiết. 1 2 3 4 5

e) Ý kiến khác:

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3. Khi một người bạn ở trong lớp được điểm CAO trong kỳ thi cuối khóa, anh chị có thể kết luận rằng.

a) Người đó gặp may. 1 2 3 4 5

b) Người đó thực sự thấu hiểu nội dung môn học. 1 2 3 4 5

c) Người đó gian lận trong kỳ thi. 1 2 3 4 5

d) Người đó học thuộc lòng bài học. 1 2 3 4 5

e) Người đó đã nghiên cứu kỹ cách ra đề thi của giảng viên. 1 2 3 4 5

f) Ý kiến khác:

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4. Những yếu tố quan trọng giúp cho sinh viên đạt điểm cao trong các kỳ thi bao gồm:

a) Có khả năng học thuộc lòng tốt.. 1 2 3 4 5

b) Có kinh nghiệm thi cử. 1 2 3 4 5

c) Có khả năng dự đoán được kiểu ra đề thi của các 1 2 3 4 5

giảng viên.

d) Có sự hiểu biết thật sự về môn học. 1 2 3 4 5

e) Biết cách gian lận trong thi cử. 1 2 3 4 5

f) May mắn 1 2 3 4 5

g) Chiếm được cảm tình của giảng viên 1 2 3 4 5

h) Ý kiến khác:

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5. Tình hình thi cử trong trường nơi các anh chị đang học có thể được đánh giá như sau:

a) Đa số các đề thi chỉ đòi hỏi sinh viên khả năng thuộc lòng bài học. 1 2 3 4 5

b) Đa số các đề thi đòi hỏi sinh viên phải có khả năng suy luận. 1 2 3 4 5

c) Đa số các đề thi đòi hỏi sinh viên phải có khả năng vận dụng các kiến thức đã học trong những trường hợp ứng dụng khác nhau. 1 2 3 4 5

d) Đa số các đề thi thể hiện chính xác mục đích của môn học. 1 2 3 4 5

e) Bài thi của sinh viên được chấm công bằng. 1 2 3 4 5

f) Các kỳ thi đánh giá chính xác kết quả học tập của sinh viên. 1 2 3 4 5

g) Sinh viên đạt điểm cao trong các kỳ thi là những người hiểu nội dung khoá học một cách thực sự. 1 2 3 4 5

h) Sinh viên không cần thiết phải hiểu bài học vẫn có thể đạt điểm cao trong các kỳ thi. 1 2 3 4 5

i)	Các sinh viên giỏi thực sự thường không đạt điểm cao trong các kỳ thi	1	2	3	4	5
j)	Rất nhiều sinh viên cố tình vi phạm qui chế thi.	1	2	3	4	5
k)	Lịch học tập quá căng thẳng nên hiện tượng học đối phó và gian lận trong thi cử là không thể tránh được.	1	2	3	4	5

l) Ý kiến khác:

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III). Một số nghiên cứu giáo dục cho thấy rằng các kỳ thi trong trường đại học có ảnh hưởng khá nhiều đến việc học tập của sinh viên. Sử dụng thang đánh giá sau đây xin anh chị hãy cho biết ý kiến của bản thân về những nhận xét sau:

1- Rất đồng ý	**2**- Đồng ý	**3**- Không có ý kiến
4- Không đồng ý	**5**- Rất không đồng ý	

a)	Các kỳ thi tạo cơ hội cho sinh viên tổng quát lại những kiến thức đã học trong khóa học.	1	2	3	4	5
b)	Các kỳ thi gây sức ép buộc sinh viên phải học bài.	1	2	3	4	5
c)	Các kỳ thi gây ảnh hưởng không tốt đến việc tiếp thu kiến thức của sinh viên bởi vì đa số sinh viên chỉ học để đối phó với kỳ thi chứ không học để thu nhận kiến thức cần thiết.	1	2	3	4	5
d)	Kết quả thi giúp sinh viên thấy được mặt mạnh và yếu của mình để tìm cách học tập tốt hơn.	1	2	3	4	5
e)	Việc tranh đua đạt điểm cao trong các kỳ thi giúp sinh viên học tập có hiệu quả hơn.	1	2	3	4	5

f) Ý kiến khác:

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IV). Qua thăm dò ý kiến một số sinh viên, chúng tôi thu nhận được một số nhận xét về việc thi cử ở các trường đại học như sau. Xin anh chị dựa trên tình hình cụ thể của trường mình đánh giá những nhận xét này.

1- Rất đồng ý	**2**- Đồng ý	**3**- Không có ý kiến
4- Không đồng ý	**5**- Rất không đồng ý	

a)	Đa số sinh viên chỉ học để đối phó với các kỳ thi.	1	2	3	4	5
b)	Học thuộc lòng bài giảng của giảng viên là cách tốt nhất để đạt điểm thi cao.	1	2	3	4	5
c)	Các kỳ thi không thể hiện được tính công bằng: các học sinh học vẹt hay quay cóp thường được điểm cao hơn các học sinh học tập nghiêm túc.	1	2	3	4	5
d)	Một số giảng viên chấm thi quá nương tay khiến cho nhiều sinh viên không đủ trình độ vẫn có thể thi đậu.	1	2	3	4	5
e)	Sinh viên phải thi quá nhiều môn trong một thời gian ngắn nên chất lượng học tập không được bảo đảm tốt.	1	2	3	4	5
f)	Có hình thức kỷ luật nghiêm khắc đối với các trường hợp gian lận trong thi cử.	1	2	3	4	5

g) Ý kiến khác:

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V). Xin anh chị vui lòng cho biết một số thông tin về bản thân:

Giới tính: __ Nam __ Nữ

Tuổi : __ 17 đến 20 ___ 20 đến 23

___ 23 đến 26 ___ Lớn hơn 26

Anh chị là sinh viên thuộc năm thứ:

__ Nhất ___ Hai

__ Ba ___ Tư

Điểm trung bình cả năm của anh chị trong năm học trước:

__ Thấp hơn 5.0 __ 5.0-6.0

__ 6.0 - 7.0 __ 7.0 - 8.0 __ Cao hơn 8.0

Xin cảm ơn sự hợp tác của anh chị.

Appendix B

Percent of Responses to Each Feature of Each Item in the Questionnaire.

Distribution of responses:

- All students (ALL) : 164
- Female students (F): 93
- Male students (M): 69
- Second year students (C2): 58
- Third year students (C3): 36
- Fourth year students (C4): 70
- Grade A students (A): 21
- Grade B students (B): 82
- Grade C students (C): 61

I). Following are ways of studying that have been used by students in the university. Please indicate what methods you are using.

1- Always use	**2**- Usually use	**3**. Rarely use
4- Never use	**5**. No idea	

Ia. Study only materials that can be asked in the exams

	ALL	F	M	C2	C3	C4	A	B	C
1	6.10	5.38	7.04	8.62	2.78	5.71	4.76	7.32	4.92
2	37.80	35.48	40.85	46.55	44.44	27.14	42.86	41.46	31.15
3	37.80	29.78	35.21	25.86	27.78	52.86	33.33	31.71	47.54
4	11.60	11.83	11.27	12.07	13.89	10.00	14.29	12.20	9.84
5	6.70	7.53	5.63	6.90	11.11	4.29	4.76	7.32	6.56

Ib. Study the previous course exam in order to predict the questions to be asked in the next exams

	ALL	F	M	C2	C3	C4	A	B	C
1	9.15	7.53	11.27	8.62	5.56	11.43	9.52	8.54	9.84
2	31.10	31.18	30.99	32.76	22.22	34.29	33.33	32.93	27.87
3	38.41	40.86	35.21	39.66	38.89	37.14	38.10	36.59	40.98
4	11.59	12.90	9.86	10.34	16.67	10.00	14.29	12.20	9.84
5	9.76	7.53	12.68	8.62	16.67	7.14	4.76	9.76	11.84

Ic. Try to memorize as much course material as possible

	ALL	F	M	C2	C3	C4	A	B	C
1	13.41	13.98	12.86	18.97	11.11	10.00	14.29	13.41	13.11
2	17.07	17.20	16.90	18.97	5.56	21.43	14.29	12.20	24.59
3	40.24	40.86	39.44	37.93	50.00	37.14	42.86	42.86	36.07
4	18.29	17.20	19.72	18.97	25.00	14.29	19.05	20.73	14.75
5	10.98	10.75	11.27	5.17	8.33	17.14	9.52	10.98	11.48

Id. Do not memorize all of the content but try to master the main ideas and principles

	ALL	F	M	C2	C3	C4	A	B	C
1	45.73	38.71	54.39	41.38	44.44	50.00	52.38	47.56	40.98
2	40.85	45.16	35.21	46.55	44.44	34.29	33.33	40.24	44.26
3	7.93	12.90	1.41	8.62	-	11.43	9.52	6.10	9.84
4	0.61	-	1.41	-	2.78	-	-	1.22	-
5	4.88	3.23	7.04	3.45	8.33	4.29	4.29	4.88	4.92

Ie. Read additional material that is related to the course content

	ALL	F	M	C2	C3	C4	A	B	C
1	10.37	7.53	14.08	8.62	19.44	7.14	28.57	8.54	6.56
2	32.32	30.11	35.21	39.66	25.00	30.00	28.57	35.37	29.51
3	50.00	54.84	43.66	43.10	41.67	60.00	33.33	48.78	57.38
4	3.05	2.15	4.23	3.45	2.78	2.86	4.76	1.22	4.92
5	4.27	5.38	2.82	5.17	11.11	-	4.76	6.10	1.64

If. Read only the course text books and lecture notes.

	ALL	F	M	C2	C3	C4	A	B	C
1	29.88	32.26	26.76	31.03	25.00	31.43	23.81	35.37	24.56
2	50.00	45.16	56.34	46.55	52.78	51.43	47.62	43.90	59.02
3	11.59	15.05	7.04	13.79	5.56	12.86	19.05	13.41	6.56
4	1.22	2.15	-	1.72	2.78	-	-	1.22	1.64
5	7.32	5.38	9.86	6.90	13.89	4.29	9.52	6.10	8.20

Ig. Discuss with a friend about the course.

	ALL	F	M	C2	C3	C4	A	B	C
1	20.12	18.28	22.54	12.07	19.44	27.14	33.33	23.17	11.48
2	46.95	53.76	38.03	43.10	55.56	45.71	42.86	51.22	42.62
3	29.88	25.81	35.21	39.66	22.22	25.71	23.81	23.17	40.98
4	1.83	2.15	1.41	3.45	2.78	-	-	1.22	3.28
5	1.22	-	2.82	1.72	-	1.43	-	1.22	1.64

Ih. Discuss with instructors about the course.

	ALL	F	M	C2	C3	C4	A	B	C
1	0.61	1.08	-	-	-	1.43	-	1.22	-
2	12.20	9.68	15.49	13.79	13.89	10.00	19.05	9.76	13.11
3	60.37	53.76	69.01	60.34	61.11	60.00	47.62	65.85	57.38
4	18.29	27.96	5.63	22.41	13.89	17.14	28.57	14.63	19.67
5	8.45	7.53	9.86	3.45	11.11	11.43	4.79	8.56	9.84

II). Do you agree or disagree with the following ideas

1- Strongly agree	**2**- agree	**3**- No idea
4- Disagree	**5**- Strongly disagree	

1. In the University, testing is used to:

II1a. Rank students

	ALL	F	M	C2	C3	C4	A	B	C
1	7.32	5.38	9.86	8.62	2.78	8.57	9.52	6.10	8.20
2	35.37	35.48	35.21	36.21	41.67	31.43	38.10	34.15	36.07
3	26.83	24.73	29.58	25.86	16.67	32.86	19.05	28.05	27.87
4	22.56	25.81	18.31	17.24	30.56	22.86	23.81	23.17	21.31
5	7.93	8.60	7.04	12.07	8.33	4.29	9.52	8.54	6.56

II1b. Select good students for further training.

	ALL	F	M	C2	C3	C4	A	B	C
1	29.27	26.88	32.39	32.76	33.33	24.29	28.57	29.27	29.51
2	54.27	53.76	54.93	46.55	50.00	62.86	57.14	54.88	52.46
3	10.98	9.68	12.68	12.07	13.89	8.57	-	10.98	14.75
4	4.88	8.60	-	8.62	-	4.29	14.29	3.66	3.28
5	0.61	1.08	-	-	2.78	-	-	1.22	-

II1. Force students to study.

	ALL	F	M	C2	C3	C4	A	B	C
1	11.59	10.75	12.86	13.79	11.11	10.00	14.29	9.76	13.11
2	37.20	36.56	38.03	24.14	41.67	45.71	14.29	43.90	36.07
3	25.00	21.51	29.58	22.41	25.00	17.14	47.62	20.73	22.95
4	23.11	26.86	18.31	32.76	19.44	17.14	23.81	21.95	24.95
5	3.05	4.31	1.41	6.90	2.78	-	-	3.66	3.28

II1d. Help instructors determine the effect of the teaching process.

	ALL	F	M	C2	C3	C4	A	B	C
1	16.64	13.98	19.72	15.52	16.67	17.14	14.29	13.41	21.31
2	38.41	43.01	32.39	39.66	27.78	42.86	47.62	37.80	36.07
3	34.15	33.33	35.21	29.31	47.22	31.43	28.57	41.46	26.32
4	9.15	7.53	11.27	13.79	5.56	7.14	4.76	6.10	14.75
5	1.83	2.15	1.41	1.72	2.78	1.43	4.76	1.22	1.64

II1e. Help students see the strong and weak side of their learning.

	ALL	F	M	C2	C3	C4	A	B	C
1	43.9	37.63	52.11	51.72	47.22	35.71	42.86	42.68	45.90
2	42.07	47.31	35.21	39.66	33.33	48.57	47.62	39.02	44.26
3	9.76	9.68	9.86	5.17	13.89	11.43	9.52	13.41	4.92
4	3.66	4.30	2.82	3.45	5.56	2.86	-	4.88	3.28
5	0.61	1.08	-	-	-	1.43	-	-	1.64

II1f. Help instructors understand the learning process of students in order to adjust their way of teaching

	ALL	F	M	C2	C3	C4	A	B	C
1	30.49	26.88	35.21	37.93	19.44	30.00	28.57	24.39	39.34
2	46.34	50.54	40.85	43.10	55.56	44.29	52.38	48.78	40.98
3	18.90	19.35	18.31	12.07	19.44	24.29	14.29	23.17	14.75
4	3.05	2.15	4.23	5.17	5.56	-	4.76	3.66	1.64
5	1.22	1.08	1.41	1.72	-	1.43	-	-	3.28

2. A good exam must:

II2a . Requires students to think critically.

	ALL	F	M	C2	C3	C4	A	B	C
1	42.07	32.26	54.93	44.83	33.33	40.29	42.86	36.59	49.18
2	48.78	55.91	39.44	46.55	55.56	47.14	38.10	58.54	39.34
3	8.54	10.75	5.63	8.62	11.11	7.14	19.05	4.88	9.84
4	0.61	1.08	-	-	-	1.43	-	-	1.64
5	-	-	-	-	-	-	-	-	-

II2b. Ask only simple questions

	ALL	F	M	C2	C3	C4	A	B	C
1	4.88	7.53	1.41	6.90	2.78	4.29	9.52	3.66	4.92
2	14.63	13.98	15.49	25.86	11.11	7.14	19.05	14.63	13.11
3	26.83	23.66	30.99	24.14	22.22	31.43	9.52	30.49	27.17
4	39.63	39.78	39.44	34.48	44.44	41.43	42.86	35.37	44.26
5	14.02	15.05	12.68	8.62	19.44	15.71	19.05	15.85	9.84

II2c. Assess correctly ability of students.

	ALL	F	M	C2	C3	C4	A	B	C
1	25.61	25.81	25.35	25.86	30.56	22.86	38.10	26.38	19.67
2	45.12	46.24	43.66	32.76	55.56	50.00	38.10	47.56	41.26
3	13.41	12.90	14.08	18.97	8.33	11.43	14.29	13.41	13.11
4	12.80	10.75	15.49	17.24	5.56	12.6	9.52	10.98	16.39
5	3.05	4.30	1.41	5.17	-	2.86	-	1.22	6.56

II2d. Ask students to use course knowledge in real applications.

	ALL	F	M	C2	C3	C4	A	B	C
1	25.00	25.58	28.17	15.52	30.56	30.00	28.57	24.39	24.59
2	59.15	58.06	60.56	65.52	58.33	54.29	57.14	57.32	62.30
3	14.02	13.20	9.86	17.24	11.11	12.86	14.29	15.85	11.48
4	1.83	2.15	1.41	1.72	-	2.86	-	2.44	1.64
5	-	-	-	-	-	-	-	-	-

II2e. Contain all of the main ideas of the course.

	ALL	F	M	C2	C3	C4	A	B	C
1	21.34	21.51	21.13	13.79	16.67	30.00	28.57	19.55	21.31
2	58.54	56.99	60.56	60.34	63.89	54.29	66.67	60.98	52.46
3	14.02	16.13	11.27	18.97	13.89	10.00	-	13.41	19.67
4	5.49	5.38	5.63	5.17	5.56	5.71	4.76	4.88	6.56
5	0.61	-	1.41	1.72	-	-	-	1.22	-

II2f. Requires students to reproduce many factual details of the course.

	ALL	F	M	C2	C3	C4	A	B	C
1	1.22	2.15	-	3.45	-	-	-	-	3.28
2	10.37	9.68	11.27	13.79	11.11	7.14	14.29	9.76	9.84
3	16.46	15.05	18.31	20.69	16.67	12.86	14.29	13.41	21.31
4	48.78	45.16	53.52	41.38	55.56	51.43	47.62	51.22	45.90
5	23.17	27.96	16.90	20.69	16.67	28.57	23.81	25.61	19.67

3. When a classmate get good high mark in a course exam, you may conclude that:

II3a. S/he is lucky

	ALL	F	M	C2	C3	C4	A	B	C
1	-	-	-	-	-	-	-	-	-
2	21.31	22.58	19.72	37.93	16.67	10.00	23.81	20.73	21.31
3	39.02	43.01	33.80	27.59	44.44	45.71	47.62	35.37	40.98
4	31.71	27.96	36.62	25.16	30.56	37.14	23.81	35.37	29.51
5	7.93	6.45	9.86	8.62	8.33	7.14	4.76	8.54	8.20

II3b. S/he really mastered the course content.

	ALL	F	M	C2	C3	C4	A	B	C
1	17.07	13.98	21.13	15.52	19.44	17.14	9.52	17.07	19.67
2	52.44	51.61	53.52	50.00	52.78	54.29	42.86	56.10	50.82
3	18.29	20.43	15.49	20.69	22.22	14.29	38.10	14.63	16.39
4	9.76	10.75	8.45	10.34	5.56	11.43	9.52	10.98	8.20
5	2.44	3.23	1.41	3.45	-	2.86	-	1.22	4.92

II3c. S/he has cheated in the exam.

	ALL	F	M	C2	C3	C4	A	B	C
1	1.22	-	2.82	3.45	-	-	-	1.22	1.64
2	7.93	9.86	5.63	12.07	8.33	4.29	14.29	7.32	6.56
3	54.27	50.54	59.15	53.45	47.22	58.57	58.57	48.78	67.21
4	28.05	29.03	26.76	22.41	33.33	30.00	30.00	32.39	19.67
5	8.54	10.75	5.63	8.62	11.11	7.14	7.14	9.76	4.92

II3d. S/he has a good memory (to memorize all of factual details of the course).

	ALL	F	M	C2	C3	C4	A	B	C
1	1.83	-	4.23	3.45	2.78	-	4.76	1.22	1.64
2	40.85	40.86	40.85	46.55	25.00	44.29	19.05	41.46	47.54
3	32.93	33.33	32.39	24.14	38.89	37.14	38.10	28.05	37.70
4	18.29	17.20	19.72	22.41	25.00	11.43	33.33	19.51	11.48
5	6.10	8.60	2.82	3.45	8.33	7.14	4.76	9.76	1.64

II3e. S/he has predicted correctly what question to be asked in the exam.

	ALL	F	M	C2	C3	C4	A	B	C
1	2.44	1.08	4.23	6.90	-	-	-	3.66	1.64
2	25.61	21.51	30.99	29.31	16.67	27.14	14.29	26.83	27.87
3	45.12	50.54	38.03	37.93	38.89	54.29	42.86	45.12	45.90
4	23.17	21.51	25.35	20.69	38.89	17.14	42.86	20.73	19.67
5	3.66	5.38	1.41	5.17	5.56	1.43	-	3.66	4.92

4 Important factor that make students get high mark in the exam include:

II4a. Ability to memorize

	ALL	F	M	C2	C3	C4	A	B	C
1	6.71	4.30	9.86	12.07	5.56	2.86	-	6.10	9.84
2	50.00	50.54	49.30	55.17	36.11	52.86	66.67	45.12	50.82
3	15.85	16.13	15.49	6.90	27.78	17.14	4.76	17.07	18.03
4	24.39	24.73	23.94	25.86	27.78	21.43	28.57	25.61	21.31
5	3.05	4.30	1.41	-	2.78	5.17	-	6.10	-

II4b. Test-taking experience

	ALL	F	M	C2	C3	C4	A	B	C
1	6.10	4.30	8.45	15.52	-	1.43	-	6.10	8.20
2	31.10	29.03	33.80	39.66	22.22	28.57	23.81	32.93	31.15
3	35.37	34.41	36.62	20.69	36.11	47.14	23.81	34.15	40.98
4	22.56	25.81	18.31	18.97	36.11	18.57	47.62	20.73	16.39
5	4.88	6.45	2.82	5.17	5.56	4.29	4.76	6.10	3.28

II4c. Ability to predict which instructor will ask which questions.

	ALL	F	M	C2	C3	C4	A	B	C
1	2.44	2.15	2.82	3.45	-	2.86	-	2.44	3.28
2	33.54	32.26	35.21	39.66	27.78	31.43	28.57	31.71	37.70
3	36.59	32.26	42.25	36.21	30.56	40.00	38.10	34.15	39.34
4	23.78	26.88	19.72	17.24	38.89	21.43	33.33	25.61	18.03
5	3.66	6.45	-	3.45	2.78	4.29	-	6.10	1.64

II4d. Deep understanding of the course.

	ALL	F	M	C2	C3	C4	A	B	C
1	47.56	40.86	56.34	44.83	44.44	51.43	57.14	46.34	45.90
2	46.34	52.69	38.03	51.72	52.78	38.57	38.10	48.78	45.90
3	4.27	4.30	423	3.45	2.78	5.71	4.76	2.44	6.56
4	1.83	2.15	1.41	-	-	4.29	-	2.44	1.64
5	-	-	-	-	-	-	-	-	-

II4e. Cheating experience.

	ALL	F	M	C2	C3	C4	A	B	C
1	1.83	-	4.23	5.17	-	-	-	1.22	3.28
2	7.93	8.60	7.04	15.52	-	5.71	9.52	8.54	6.56
3	32.32	33.33	30.99	31.03	36.11	31.43	23.81	31.71	36.07
4	30.49	29.03	32.39	24.14	27.78	37.14	38.10	30.49	27.87
5	27.44	29.03	25.35	24.14	36.11	25.71	28.57	28.05	26.32

II4f. Good luck.

	ALL	F	M	C2	C3	C4	A	B	C
1	2.44	3.23	1.41	3.45	-	2.86	-	2.44	3.28
2	31.71	31.18	32.39	39.66	27.78	27.14	47.62	28.05	31.15
3	38.41	44.09	30.99	31.03	33.33	47.14	28.57	40.24	39.34
4	23.78	20.43	28.17	24.14	30.56	20.00	19.05	26.83	21.31
5	3.66	1.08	7.04	1.72	8.33	2.86	4.76	2.44	4.29

II4g. Impression to instructor

	ALL	F	M	C2	C3	C4	A	B	C
1	-	-	-	-	-	-	-	-	-
2	5.49	4.30	7.04	10.34	2.78	2.86	9.52	3.66	6.56
3	34.15	34.41	33.80	22.41	38.89	41.43	33.33	31.71	37.70
4	36.59	38.71	33.80	37.93	30.56	38.57	33.33	39.02	34.43
5	23.87	22.58	25.35	29.31	27.78	17.41	23.81	25.61	21.31

5. The testing process in your university can be described as:

II5a. Most of the test just asks about the simple facts (that students have to memorize).

	ALL	F	M	C2	C3	C4	A	B	C
1	3.05	3.23	2.82	1.72	2.78	4.29	4.76	2.44	3.28
2	30.49	26.88	35.21	36.21	27.78	27.14	33.33	23.17	39.34
3	22.56	23.66	21.13	18.97	22.22	25.71	14.29	25.61	21.31
4	39.02	39.78	38.03	34.48	47.22	38.57	42.86	42.68	32.79
5	4.88	6.45	2.82	8.62	-	4.29	4.76	6.10	3.28

II5b. Most of the test requires students to have not only memory of facts but the ability to think critically.

	ALL	F	M	C2	C3	C4	A	B	C
1	8.54	6.45	11.27	-	13.89	12.86	19.05	7.32	6.56
2	53.66	49.46	59.15	58.62	55.56	48.57	38.10	51.22	62.30
3	20.73	25.81	14.08	20.69	22.22	20.00	23.81	21.95	18.03
4	16.46	17.20	15.49	20.69	8.33	17.14	19.05	18.29	13.11
5	0.61	1.08	-	-	-	1.43	-	1.22	-

II5c. Most of the tests requires students to use course knowledge in real application.

	ALL	F	M	C2	C3	C4	A	B	C
1	17.07	11.83	23.94	15.52	19.44	17.14	28.57	15.85	14.75
2	54.27	61.29	45.07	50.00	55.56	57.14	57.14	50.00	59.02
3	17.07	15.05	19.72	25.86	13.89	11.43	9.52	18.29	18.03
4	10.37	10.75	9.86	5.17	11.11	14.29	4.76	14.63	6.56
5	1.22	1.08	1.41	3.45	-	-	-	1.22	1.64

II5d. Most of the test reflects correctly the course objective stated by the instructors.

	ALL	F	M	C2	C3	C4	A	B	C
1	14.02	10.75	18.31	17.24	8.33	14.29	23.81	14.63	9.84
2	50.00	51.61	47.89	53.54	63.89	40.00	38.10	46.34	59.02
3	26.22	24.73	28.17	24.14	22.22	30.00	28.57	29.27	21.31
4	9.15	11.83	5.63	3.45	5.56	15.71	9.52	9.76	8.20
5	0.61	1.08	-	1.72	-	-	-	-	1.64

II5e. Tests are marked fairly

	ALL	F	M	C2	C3	C4	A	B	C
1	18.90	19.35	18.31	27.59	19.44	11.43	19.05	15.85	22.95
2	40.24	35.48	46.48	41.38	36.11	41.43	52.38	40.24	36.07
3	26.83	31.18	21.31	20.69	36.11	27.14	19.05	26.83	29.51
4	12.20	12.90	11.27	6.90	5.56	20.00	9.52	14.63	9.84
5	1.83	1.08	2.82	3.45	2.78	-	-	2.44	1.64

II5f. Test results reflect correctly ability of students.

	ALL	F	M	C2	C3	C4	A	B	C
1	4.27	2.15	7.04	8.62	5.56	-	-	3.66	6.56
2	26.83	22.58	32.39	36.21	25.00	20.00	28.57	28.05	24.59
3	28.66	26.88	30.99	20.69	38.89	30.00	33.33	29.27	26.23
4	33.54	39.78	25.35	25.86	25.00	44.29	33.33	31.71	36.07
5	6.71	8.60	4.23	8.62	5.56	5.71	4.76	7.32	6.56

I5g. Students who get high marks are students who have a deep understanding of the course.

	ALL	F	M	C2	C3	C4	A	B	C
1	13.41	10.75	16.90	8.62	19.44	14.29	9.52	19.51	6.56
2	43.29	36.56	52.11	44.83	47.22	40.00	42.86	35.37	54.10
3	23.78	27.96	18.31	27.59	22.22	21.43	33.33	23.17	21.31
4	18.29	22.58	12.68	17.24	8.33	24.29	14.29	20.73	16.39
5	1.22	2.15	-	1.72	2.78	-	-	1.22	1.64

II5h. Students who do not understand the course content still can get high marks.

	ALL	F	M	C2	C3	C4	A	B	C
1	0.61	1.08	-	1.72	-	-	-	-	1.64
2	12.80	15.05	9.86	13.79	11.11	12.86	4.76	14.63	13.11
3	28.05	24.73	32.39	18.79	16.67	41.43	23.81	26.83	31.15
4	43.29	47.31	38.03	50.00	55.56	31.43	57.14	45.12	36.07
5	15.24	11.83	19.72	15.52	16.67	14.29	13.41	13.41	18.03

II5i. Usually good students do not get high mark.

	ALL	F	M	C2	C3	C4	A	B	C
1	3.66	4.30	2.82	5.17	-	4.29	4.76	6.10	-
2	14.63	10.75	19.72	24.14	-	14.29	14.29	9.76	21.31
3	30.12	21.51	18.31	24.14	11.11	21.43	9.52	17.07	27.87
4	54.27	59.14	47.89	41.38	80.56	51.43	57.14	58.54	47.54
5	7.32	4.30	11.27	5.17	8.33	8.57	14.29	8.54	3.28

II5j. Many students cheat in the exams.

	ALL	F	M	C2	C3	C4	A	B	C
1	7.32	4.30	11.27	13.97	5.56	2.86	4.76	8.54	6.56
2	30.49	30.11	30.99	39.66	27.78	24.29	33.33	25.61	36.07
3	34.15	39.78	26.76	20.69	33.33	45.71	42.86	34.15	31.15
4	21.95	20.43	23.94	17.24	30.56	21.43	14.29	24.39	21.31
5	6.10	5.38	7.04	8.62	2.78	5.71	4.76	7.32	4.92

II5k. Students have to study too much so cheating is unavoidable.

	ALL	F	M	C2	C3	C4	A	B	C
1	18.90	13.89	25.35	20.69	11.11	21.43	9.52	19.51	21.31
2	46.95	54.84	36.62	44.83	30.56	57.14	42.86	46.34	49.18
3	17.07	15.05	19.72	18.97	30.56	8.57	23.81	17.07	14.75
4	15.24	16.13	14.08	15.52	27.78	8.57	23.81	15.85	11.48
5	1.83	-	4.23	-	-	4.29	-	1.22	3.28

IIIa. Exams give students the chance to generalize the knowledge studied during the course.

	ALL	F	M	C2	C3	C4	A	B	C
1	37.80	39.78	35.21	25.86	38.89	47.14	47.62	39.02	32.79
2	57.32	55.91	59.15	67.24	58.33	48.57	38.10	58.54	62.30
3	3.66	2.15	5.63	5.17	2.78	2.86	4.76	2.44	4.92
4	1.22	2.15	-	1.72	-	1.43	9.52	-	-
5	-	-	-	-	-	-	-	-	-

IIIb. Exams force students to study.

	ALL	F	M	C2	C3	C4	A	B	C
1	9.76	7.53	12.68	13.79	8.33	9.52	9.52	10.98	8.20
2	55.49	59.14	50.70	56.90	61.11	61.90	61.90	54.88	54.10
3	18.29	20.43	15.49	17.24	8.33	14.29	14.29	15.85	22.95
4	14.02	10.75	18.31	10.34	19.44	14.29	14.29	15.85	11.48
5	2.44	2.15	2.82	1.72	2.78	-	-	2.44	3.28

III. Exams cause bad effects on students' learning because most students study just for the test and not for knowledge.

	ALL	F	M	C2	C3	C4	A	B	C
1	7.32	5.38	9.86	10.34	8.33	4.29	19.05	4.88	6.56
2	23.17	25.81	19.72	34.48	16.67	17.14	19.05	21.95	26.23
3	30.49	31.18	29.58	25.86	30.56	34.29	23.81	36.95	24.59
4	33.54	32.26	35.21	25.86	33.33	40.00	33.33	31.71	36.07
5	5.49	5.38	5.63	3.45	11.11	4.29	4.76	4.88	6.56

IIID. Exam give students feedback so they can adjust their learning

	ALL	F	M	C2	C3	C4	A	B	C
1	25.00	22.58	28.17	31.03	27.78	18.57	28.57	21.95	27.87
2	60.98	62.37	59.15	55.17	55.56	68.57	66.67	60.98	59.02
3	12.80	13.98	11.27	10.34	16.67	12.86	4.76	17.07	9.84
4	-	-	1.41	-	-	-	-	-	-
5	1.22	1.08	-	3.45	-	-	-	-	3.28

IIIe. The competition to get higher marks helps students study better.

	ALL	F	M	C2	C3	C4	A	B	C
1	18.29	16.13	21.13	22.41	19.44	14.29	23.81	20.73	13.11
2	51.83	52.69	50.70	48.28	52.78	54.29	61.90	46.34	55.74
3	20.12	21.51	18.31	22.41	13.89	21.43	14.29	20.73	21.31
4	9.15	8.60	9.86	6.90	13.89	8.57	-	10.98	9.84
5	0.61	1.08	-	-	-	1.43	-	11.22	-

IV). Following are ideas collected from students in your university. Do you agree or disagree with them.

IVa. Most students study just for the tests.

	ALL	F	M	C2	C3	C4	A	B	C
1	13.41	10.75	16.90	24.14	5.56	8.57	9.52	13.41	14.75
2	46.95	50.54	42.25	55.17	50.00	38.57	57.14	42.68	49.18
3	25.00	29.03	19.72	8.62	33.33	34.29	19.05	29.27	21.31
4	13.41	9.68	18.31	8.62	11.11	18.56	14.29	13.41	13.11
5	1.22	-	2.82	3.45	-	-	-	1.22	1.64

IVb. Memorizing the lecture notes is the best way to get a high mark in the course exam.

	ALL	F	M	C2	C3	C4	A	B	C
1	4.88	3.23	7.04	6.90	2.78	4.29	14.29	2.44	4.92
2	33.54	32.26	35.21	44.83	27.78	27.14	23.81	30.49	40.98
3	21.95	24.73	18.31	17.24	16.67	28.57	14.29	23.17	22.95
4	36.59	36.56	36.62	27.59	52.78	35.71	47.62	37.80	31.15
5	3.05	3.23	2.82	3.45	-	4.29	-	6.10	-

IVc. The exams are not fair. Student who rote learn or cheat are usually get better marks than students who study seriously.

	ALL	F	M	C2	C3	C4	A	B	C
1	10.98	8.60	14.08	18.97	5.56	7.14	4.76	13.41	9.84
2	37.80	37.63	38.03	46.55	22.22	38.57	38.10	37.80	37.70
3	29.27	31.18	26.76	20.69	44.44	28.57	33.33	28.05	29.51
4	19.51	18.28	21.13	12.07	25.00	22.86	23.81	18.29	19.67
5	2.44	4.30	-	1.72	2.78	2.86	-	2.44	3.28

IVd. The instructors are so easy that many underqualified students still pass the courses.

	ALL	F	M	C2	C3	C4	A	B	C
1	5.49	3.23	8.45	12.07	2.78	1.43	4.76	6.10	4.92
2	15.24	20.43	8.45	8.62	22.22	17.14	19.05	20.73	6.56
3	44.51	39.78	50.70	36.21	47.22	50.00	28.57	45.12	49.18
4	30.49	33.33	26.76	36.21	22.22	30.00	47.62	25.61	31.15
5	4.27	3.23	5.63	6.90	5.56	1.43	-	2.44	8.20

IVe. Students have to take so many course exams in a short time so the quality of testing is not good.

	ALL	F	M	C2	C3	C4	A	B	C
1	33.54	33.33	33.80	34.48	16.67	41.43	23.81	37.80	31.15
2	48.17	48.39	47.89	48.28	41.67	51.43	42.86	45.12	54.10
3	9.76	9.68	9.86	12.07	19.44	2.86	14.29	9.76	8.20
4	7.32	7.53	7.04	3.45	19.44	4.29	19.05	7.32	3.28
5	1.22	1.08	1.41	1.72	2.78	-	-	-	3.28

IVf. The testing process needed to be more disciplined. Students who cheat must be seriously penalized

	ALL	F	M	C2	C3	C4	A	B	C
1	23.78	16.13	33.80	34.48	25.00	14.29	28.57	26.83	18.03
2	47.56	53.76	39.44	39.66	38.89	58.57	33.33	48.78	50.82
3	24.39	23.66	25.35	20.66	30.56	24.29	28.57	20.73	27.87
4	3.05	4.30	1.41	3.45	2.78	2.86	9.52	2.44	1.64
5	0.61	1.08	-	-	2.78	-	-	1.22	-

Appendix C

Means score or responses to each feature in the questionnaire.

ALL: All students (164)

F: Female students (93)

M: Male students (69)

C2: Second-year students (58)

C3: Third-year students (36)

C4: Fourth-year students (70)

A: A students (21)

B: B students (82)

C: C students (61)

Students' perceptions of the testing process

ITEM	ALL	F	M	C2	C3	C4	A	B	C
II3a	3.262	3.183	3.362	3.052	3.306	3.414	3.095	3.317	3.246
II3b	3.720	3.624	3.899	3.638	3.861	3.714	3.524	3.768	3.721
II3c	3.348	3.409	3.261	3.207	3.472	3.400	3.476	3.427	3.197
II3e	3.000	3.086	2.899	2.879	3.333	2.929	3.286	2.939	2.984
II4b	2.890	3.011	2.739	2.586	3.250	2.957	3.333	2.878	2.754
II4c	2.927	3.032	2.768	2.776	3.167	2.929	3.048	3.012	2.770
II4d	4.394	4.323	4.478	4.414	4.417	4.371	4.524	4.390	4.361
II4e	3.738	3.785	3.652	3.466	4.000	3.829	3.857	3.756	3.672
II4f	2.945	2.849	3.101	2.810	3.194	2.929	2.810	2.988	2.934
II4g	3.787	3.796	3.754	3.862	3.833	3.700	3.714	3.866	3.705
Validity	3.401	3.410	3.391	3.269	3.583	3.417	3.467	3.434	3.334
II3d	2.860	2.935	2.768	2.759	3.111	2.814	3.143	2.951	2.639
II4a	2.671	2.742	2.536	2.466	2.861	2.743	2.619	2.805	2.508
II5a	3.122	3.194	3.000	3.121	3.139	3.114	3.095	3.268	2.934
II5b	3.530	3.430	3.638	3.379	3.750	3.543	3.571	3.451	3.623
II5c	3.756	3.720	3.783	3.690	3.833	3.771	4.095	3.646	3.787
II5d	3.677	3.591	3.812	3.810	3.750	3.529	3.762	3.659	3.672
IVb	2.994	3.043	2.913	2.759	3.194	3.086	2.952	3.146	2.803
IVe	1.945	1.946	1.957	1.897	2.500	1.700	2.286	1.866	1.934
Quality	3.069	3.075	3.051	2.895	3.267	3.038	3.190	3.099	2.988

Students' perceptions of the testing process (con.)

ITEM	ALL	F	M	C2	C3	C4	A	B	C
II5e	3.622	3.591	3.681	3.828	3.639	3.443	3.810	3.524	3.689
II5f	2.884	2.699	3.145	3.103	3.000	2.643	2.857	2.890	2.885
II5g	3.494	3.312	3.768	3.414	3.722	3.443	3.476	3.512	3.475
II5h	3.598	3.538	3.652	3.638	3.778	3.471	3.810	3.572	3.557
II5i	3.470	3.484	3.478	3.172	3.972	3.457	3.619	3.537	3.328
IVc	2.646	2.720	2.565	2.310	2.972	2.757	2.762	2.585	2.689
IVd	3.128	3.129	3.116	3.172	3.056	3.129	3.190	2.976	3.311
Fairness	3.263	3.210	3.344	3.234	3.448	3.192	3.361	3.228	3.276
II5j	2.890	2.925	2.841	2.672	2.972	3.029	2.810	2.963	2.820
II5k	2.341	2.333	2.377	2.293	2.750	2.171	2.619	2.329	2.262
IVf	2.086	2.196	1.913	1.930	2.194	2.157	2.190	2.024	2.133
Cheating	2.440	2.486	2.377	2.298	2.639	2.452	2.540	2.439	2.406

Students' understandings of the purpose of testing

ITEM	ALL	F	M	C2	C3	C4	A	B	C
II1a	3.124	3.031	3.250	3.124	3.000	3.173	3.141	3.062	3.184
II1b	4.067	3.968	4.203	4.034	4.111	4.071	4.000	4.073	4.082
II1c	2.689	2.774	2.580	2.948	2.611	2.514	2.810	2.659	2.689
II1d	3.585	3.591	3.565	3.534	3.500	3.671	3.619	3.561	3.607
II1e	4.250	4.161	4.362	4.397	4.222	4.143	4.333	4.195	4.295
II1f	4.018	4.000	4.029	4.103	3.889	4.014	4.048	3.939	4.115
II2a	4.323	4.194	4.493	4.362	4.222	4.343	4.238	4.317	4.361
II2b	3.433	3.409	3.464	3.121	3.667	3.571	3.429	3.451	3.410
II2c	3.774	3.785	3.797	3.569	4.111	3.771	4.048	3.878	3.541
II2d	4.073	4.011	4.159	3.948	4.194	4.114	4.143	4.037	4.098
II2e	3.945	3.946	3.928	3.793	3.917	4.086	4.190	3.927	3.885
II2f	3.823	3.817	3.739	3.621	3.778	4.014	3.810	3.927	3.689
IIIa	4.317	4.333	4.290	4.172	4.361	4.414	4.238	4.366	4.279
IIIb	2.439	2.409	2.493	2.293	2.472	2.534	2.333	2.439	2.475
IIIc	3.067	3.065	3.087	2.776	3.222	3.229	2.857	3.098	3.098
IIId	4.085	4.054	4.116	4.103	4.111	4.057	4.238	4.049	4.082
IIIe	3.780	3.742	3.812	3.862	3.778	3.714	4.095	3.774	3.721
MEAN	3.731	3.702	3.769	3.693	3.754	3.761	3.789	3.732	3.720