

Students' attitudes towards Aristotle University of Thessaloniki

**I. Andreadis, Th. Chadjipadelis
Aristotle University of Thessaloniki**

Aristotle University of Thessaloniki (AUTH) is the largest university in Greece. There are about 100,000 undergraduate and postgraduate students who study at one of its Schools and Faculties. The University provides a set of administrative, financial and other services to its students to facilitate their studies. For instance, students are offered access to university libraries and the Internet, health care, counselling and psychological support, student mobility programmes, career office and work-based training. Students with low family income are also offered catering and accommodation. In this paper we present the results of the most recent survey which was used to collect the students' personal opinion about AUTH. We present their perceived value of each service provided to them, their level of satisfaction on the contribution of their school to their personal development as scientists, professionals and citizens, the quality of their assistantship experience with faculty members, their opinion about the aesthetics and cleanness within the campus, the number of instructive personnel and the number of students, the laboratory facilities, and their priorities on the issues that should be improved. Students are the University customers and the results presented here should be considered in a continuous effort on improving the quality of AUTH services.

Introduction

Service quality measurement of higher education institutions serves as an instrument of improved, efficient planning of their strategic goals and destinations. Higher education institutions which do not measure the performance of their services are not able to define the sections on which more resources should be spent to improve the experience of their students.

Research on quality management in higher education has experienced increasing interest since late 1980s. Qwlia and Aspinwall (1996), after reviewing the related literature and conducting a survey among quality management lecturers, suggest that the total quality management principles, used in the industrial field, could also be applied in higher education. Koslowski (2006) argues that higher education institutions can learn important lessons from quality management and assessment practice in industry. Similar approaches have been employed by several researches who consider quality assessment in higher education with terms like "customer satisfaction" and "customer delight" (Guolla, 1999; Martensen, Gronholdt, Eskildsen, & Kristensen, 1999; Popli, 2005). It is argued that student satisfaction is closely related with student loyalty and retention (Hennig-Thurau, Langer, & Hansen, 2001).

A higher education institution is a large organisation which provides a large set of different services. This set includes core services, i.e. learning services and offered courses, and other facilitating services, i.e. library access, counselling and psychological support, access to laboratories, work-based education etc. The recent approach of quality assessment in higher education has lead to a significant number of published papers with measurements of the quality of these services. Some papers have focused on teaching and course evaluation (Aylor & Oppliger, 2003; Bjorklund, Parente, & Sathianathan, 2004; Fram & Camp, 1995; Lambert, Terenzini, & Lattuca, 2007; Palihawadana & Holmes, 1999), while other papers have concentrated on specific services, like library services (Deese-Roberts & Keating, 2000; Gardner & Eng, 2005; Hayden, O'Brien, & Rathaille, 2005) and out-of-class and work-based education (Freestone, Thompson, & Williams, 2006; McKinney, Saxe, & Cobb, 1998; McKinney, Vacca, Medvedeva, & Malak, 2004; van Eps, Cooke, Creedy, & Walker, 2006).

The target of this paper is to present the results of survey which attempts an initial evaluation of a wide variety of services provided by the Aristotle University of Thessaloniki. The outline of the rest of this paper is as follows: the following section deals with the design of the survey and provides some characteristics of the students in the sample. The largest part of this paper is dedicated to the results of the survey which are presented in three subsections. The last section of

this paper presents implications of survey findings for AUTH administrators, provides suggestions for further research and comments on the system that regulates the entrance of students in tertiary education in Greece.

Survey design and sample characteristics

The survey was conducted in May of 2005. Data were collected using a face to face, short, printed questionnaire by 39 groups of researchers. 25 groups were placed within AUTH main campus and 14 groups were placed to AUTH buildings outside the main campus. This procedure has produced 2792 completed questionnaires.

The survey was designed to collect a representative sample of students from each AUTH school. AUTH consists of 12 faculties and 4 independent schools. The completed questionnaires are not uniformly distributed among all faculties. This is due to different sizes of faculties. There are faculties which include a large number of schools. Consequently, these faculties host a large number of students and they are represented in the sample with a larger number of students. On the other hand there are faculties that consist of one school only. Therefore, their students in the sample correspond to smaller percents.

The distribution of the sample is presented in Table 1. About 55% of the questionnaires are from students of the faculties of Philosophy, Engineering and Sciences because. Faculty of Philosophy includes eight schools, Faculty of Engineering includes seven schools and Faculty of Sciences consists of 5 schools.

Table 1 Sample distribution by faculty

Faculty	Percent
Faculty of Theology	3.4%
Faculty of Philosophy	22.1%
Faculty of Sciences	14.6%
Faculty of Law, Economics and Political Sciences	4.7%
Faculty of Agriculture	3.5%
Faculty of Forestry and Natural Environment	2.7%
Faculty of Veterinary Medicine	2.2%
Faculty of Medicine	3.0%
Faculty of Dentistry	2.9%
Faculty of Engineering	19.3%
Faculty of Fine Arts	6.1%
Faculty of Education	5.8%
Independent Schools	9.7%

The sample is also representative as far as the active students' grade is concerned. First year students represent 22.5% of the sample. Senior and post-senior students represent 23% of the sample. The rest of the sample consists of pre-senior students, i.e. students who are on a grade that is between the first year and the last year of studies. Considering that most AUTH schools require four years of studies and that there are some schools which offer five or six years of studies, a representative percent for pre-senior among active students should be about 55% as it is the case with the sample.

This survey explores student satisfaction from various aspects of their life as students. One of the evaluated aspects is the curriculum of their school. An important characteristic of the students participating to this survey is the time they spend on attending classes. The opinion of students who attend all or almost all of the classes, cannot be as important as the opinion of students who rarely attend classes. The satisfaction level of the latter group is not based on complete, in-depth

knowledge of the situation they are asked to evaluate. Table 2 shows the distribution of time spent on attending classes (hours per week) of the students in the sample.

Table 2 Distribution of time attending classes

Time attending classes (hours per week)	Percent
1-5	20,2%
6-10	27,7%
11-15	22,9%
16-20	14,8%
21-25	8,8%
26-30	5,7%

Statistical analysis

Most of the items in satisfaction questionnaires are likert-type. This approach results to a dataset that mostly consists of categorical, ordered variables. The categorical variables of the survey were treated with suitable statistical techniques such as corresponding analysis and categorical principal components analysis. Bartholomew et al (2002) provide a very useful approach to correspondence analysis and principal components analysis. For the special case of principal components analysis for categorical data the interested reader should be directed to the advancements of the Gifi system provided by Michailidis and De Leeuw (1998; 2000; 2005).

Survey findings are presented in three subsections dealing with: a) the most important school selection criteria for AUTH students, b) student satisfaction levels from the quality of AUTH services and c) students' priorities on dealing with services of insufficient quality.

School selection criteria

Students choose universities, faculties and schools considering a set of criteria. Previous research has revealed that university or school reputation plays an important role on this choice, but there are also other important factors such as proximity to home, provided facilities, costs etc (Cook & Zallocco, 1983; Price, Matzdorf, Smith, & Agahi, 2003). Some of these criteria, i.e. costs, promotion and advertising, are irrelevant for AUTH students. AUTH students' school selection criteria in ascending order according to their importance are presented in Table 3. The most important criterion is students' personal aptitudes. Almost nine out of ten students in the sample consider personal aptitudes as an important factor at some level (low or high). The rational behind these figures is obvious: students, who are adept in a scientific field, are those who would like to further study it.

Table 3 Selection criteria

	Unimportant	Of little importance	Quite important	Very important
I live in Thessaloniki	46,8%	13,4%	18,9%	20,9%
Reputation of faculty members	45,2%	31,4%	18,1%	5,3%
Research activities	39,6%	31,0%	22,6%	6,9%
School reputation	23,0%	32,5%	33,0%	11,5%
Personal exam results	13,3%	17,8%	38,2%	30,6%
Personal aptitudes	10,7%	17,6%	36,2%	35,5%

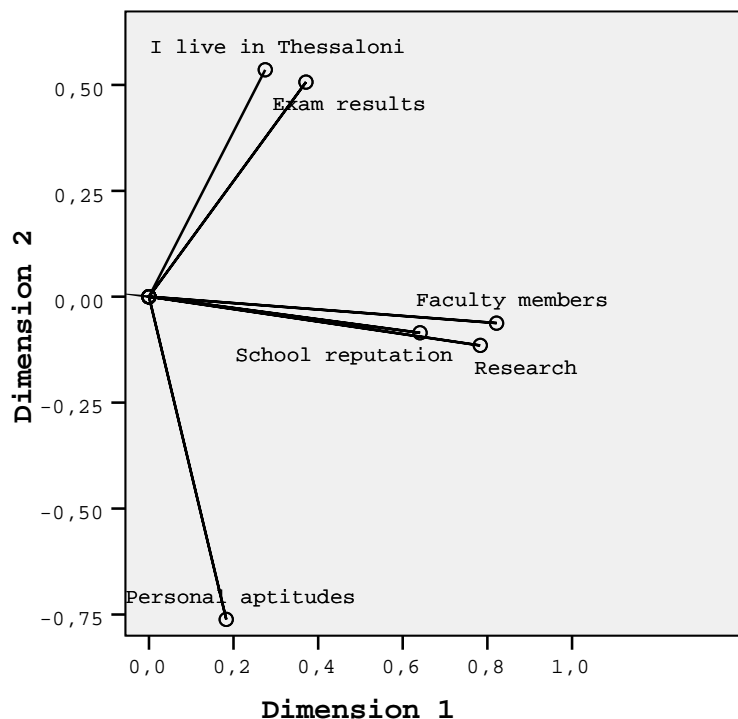
Personal exam results are considered as the second most important criterion. This is an expected finding considering the system that regulates how Greek students enter tertiary education: Each student who wants to enter tertiary education is required to participate in national exams; students' marks on these exams are very important for students' future education. After the announcement of

the marks, students complete an application form in which they rank their preferred schools and faculties among all schools and faculties of all Greek Universities. Because of this system, it is not rare to meet students who have compromised and study at a faculty or school that was not even among their top five choices. For instance, a student who wants to enter Faculty of Medicine needs to score extremely high. If marks are not high enough, this student could be found studying at the School of Pharmacy or another related or unrelated to the Medicine school.

The ordered criteria list continues with three school characteristics: school reputation, research activities and reputation of faculty members. The list is completed with a criterion that is relevant to practical issues: More than half of the students have selected a school in AUTH taking into account that AUTH is located in Thessaloniki, where their home is.

Further analysis (categorical principal components) indicates that these criteria can be separated into three groups: a group which consists of three school related criteria (reputation of school and faculty members and research activities), a group which consists of two practical criteria (exam results and living in Thessaloniki), and a third group with one criterion: personal aptitudes. Diagram 1 shows how these groups are separated. The contrast between the last two groups forms the second dimension of the diagram. It seems that there are two different groups of students: one group of students who establish their selection on practical issues and one group of students who base their selection on their personal skills and aptitudes. Correspondence analysis shows that the former group consists of students who study at a school that was not among their top choices and the latter consists of students who study at the school they have ranked as their first choice.

Component Loadings



Variable Principal Normalization.

Diagram 1 Groups of selection criteria

Evaluation and Satisfaction

In order to measure and rank student satisfaction from a list of auth services and offered opportunities the questionnaire included the question: "Independently of whether you use/exploit the service/opportunity, what is your satisfaction level of the way the university facilitates/gives you the opportunity to:" followed by the list presented in Table 4.

Table 4 Satisfaction level from university services

	Not at all satisfied	Not very satisfied	Fairly satisfied	Very satisfied
Make new contacts and meet people	4,7%	12,6%	44,6%	38,0%
Spend some period studying at a foreign university	11,8%	29,2%	40,4%	18,7%
Use modern and up-to-date libraries	12,5%	36,4%	38,6%	12,6%
Participate in work-based education programs	12,6%	28,6%	41,1%	17,6%
Use modern ITC equipment	16,4%	38,8%	33,2%	11,5%
Watch cultural events	17,2%	39,9%	33,6%	9,2%
Become an active citizen/political animal	18,4%	25,4%	36,5%	19,6%
Participate in cultural activities	23,1%	36,5%	30,5%	9,8%
Use recreation centers and grounds	23,7%	41,5%	27,3%	7,5%
Cover your feeding needs	26,1%	32,0%	29,6%	12,3%
Use modern and clean buildings	33,7%	37,8%	20,0%	8,5%
Cover your accommodations needs	43,3%	31,4%	17,5%	7,8%
Enjoy psychological support	44,0%	30,7%	16,8%	8,5%

AUTH students believe that the university offers them a great opportunity to make new contacts and get to know other people. More than eight out of ten students are fairly or very satisfied from the university framework that provides the conditions to develop human relationships. Of course, AUTH administration cannot be praised for this situation, since it has not gone through any actions that resulted in this framework.

Symmetrical Normalization

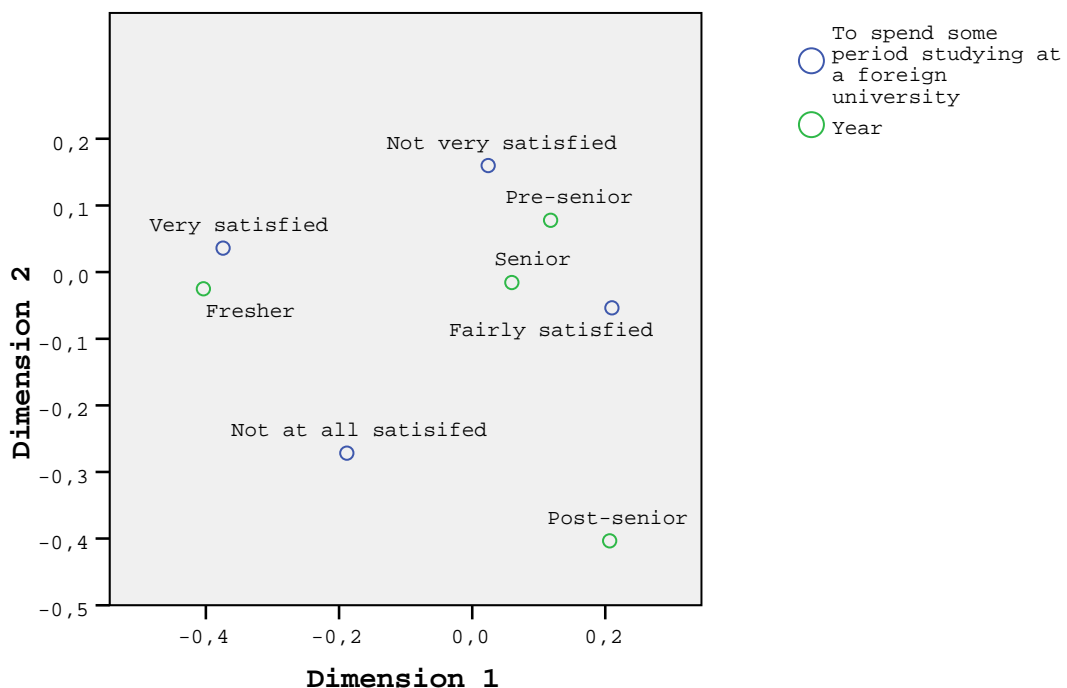


Diagram 2 Year of study and opportunity to study at a foreign university

More than two out of three students are delighted with the opportunity they have to spend some time at a foreign university. This opportunity is a result of European Programmes, i.e. Erasmus, which provide the framework for the development of cooperation programmes for students' exchanges between Schools of the European Union. The satisfaction level is not uniform among all students. Correspondence analysis findings in Diagram 2 indicate that first year students are more satisfied than the rest of the students.

Almost nine out of ten students are not dissatisfied from the libraries and the opportunities to participate in work-based education. The list continues with four issues with which students are moderately satisfied: about half of the students are fairly or very satisfied and half of the students are a little or not satisfied with them. These issues are the opportunities to use modern ITC equipment, to watch cultural events, to become active citizens and to participate in cultural activities.

On the other hand, AUTH fails to satisfy students with its psychological support and accommodation services. More than four out of ten students are dissatisfied with these services. Feeding services are also considered inadequate. Finally, AUTH students think that the university administrators should take care of its buildings and grounds. Less than one out of ten students are very satisfied with the university buildings and recreation centres and grounds.

Table 5 Satisfaction level from School services

	Not at all satisfied	Not very satisfied	Fairly satisfied	Very satisfied
Professional qualifications	10,0%	36,1%	43,7%	10,2%
Specialization and preparation for further studies	10,1%	41,4%	41,0%	7,5%
Acquisition of general education	12,4%	33,6%	43,6%	10,5%
Comprehension of science and technology	12,6%	38,0%	40,0%	9,4%
Personal growth and socialization	13,0%	35,6%	40,2%	11,1%
Professional skills	13,4%	38,4%	39,5%	8,7%
Instructive personnel behavior	18,5%	41,4%	33,2%	6,9%
Preparation for vocational rehabilitation	19,8%	39,7%	31,5%	9,1%
Administrative personnel services	22,8%	41,8%	28,9%	6,6%
Administrative personnel behavior	25,7%	40,1%	26,9%	7,4%

As Table 5 shows about half of AUTH students are fairly or very satisfied from a set different issues concerning their school curricula, and half of them are dissatisfied or not very satisfied. These issues are: Professional qualifications, Specialization and preparation for further studies, Acquisition of general education, Comprehension of science and technology, Personal growth and socialization, and Professional skills. They are less satisfied from the behaviour of the instructive and administrative personnel, the preparation for vocational rehabilitation and the administrative services.

Satisfaction level is not uniform among all students. Correspondence analysis findings in Diagram 3 indicate that first year students are more satisfied than the rest of the students. Satisfaction level seems to decrease as year of study gets bigger. There is a similar pattern for almost every school service. This could mean that students have great expectations and they are optimistic in their first year as students, but in the next years their experience makes them to realize that the situation is not as good as they expected.

Curriculum satisfaction level is associated with the hours spent on attending classes. The most hours a student spends on attending classes, the higher the level of satisfaction from curriculum issues. Diagram 4 reveals this association: students attending 1-5 hours per week are less satisfied

from the professional skills they develop than students attending 26-30 hours per week. Students attending 6-10 hours per week are closer to the "not very satisfied" answer and the rest of the students are closer to the "fairly satisfied" answer.

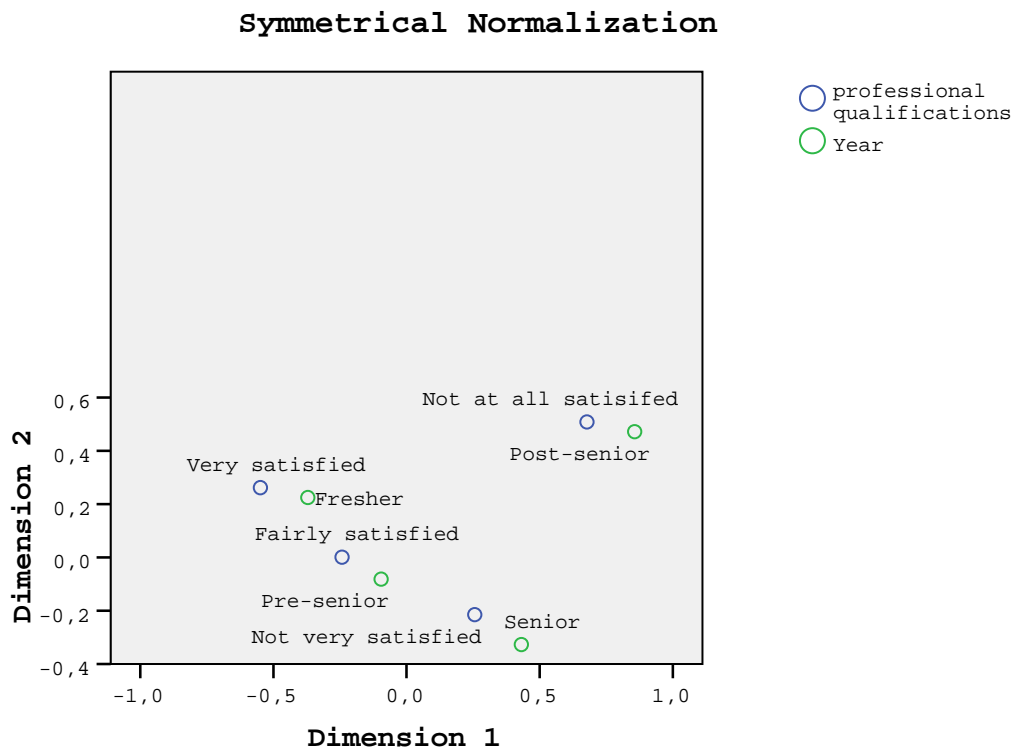


Diagram 3 Year of study and satisfaction from professional qualifications

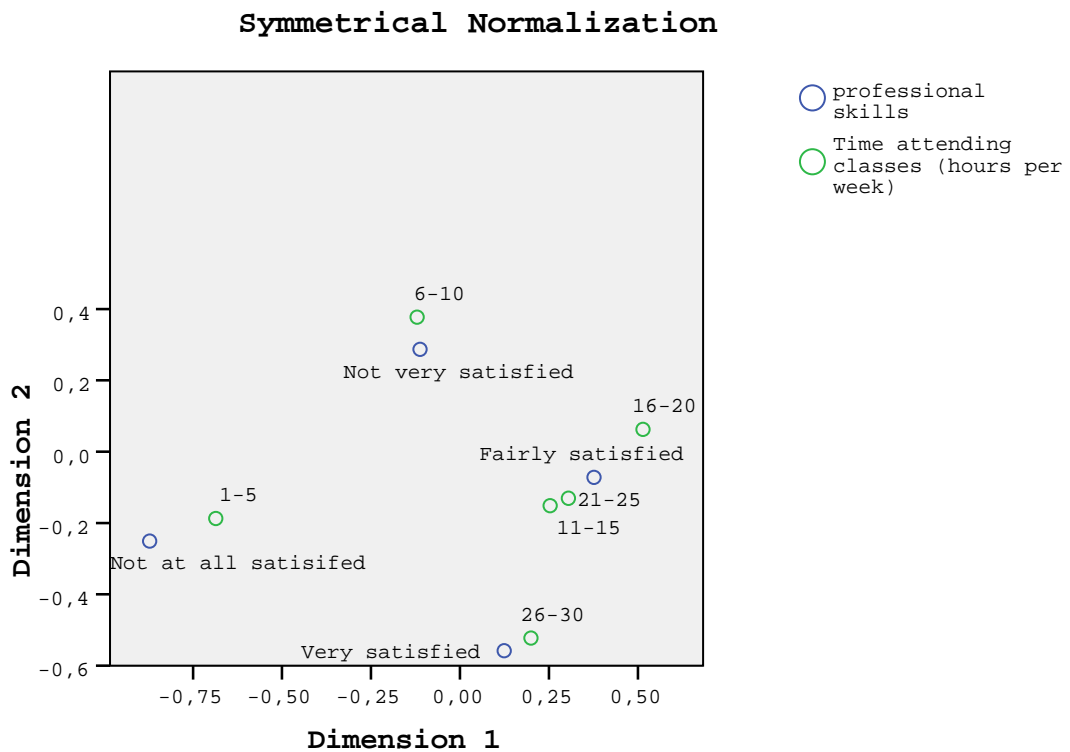


Diagram 4 Attending hours and satisfaction from professional skills

Students studying at the school that was their first selection are more satisfied from the curriculum issues than the rest of the students. Most of the students studying at a school that they have ranked with a number from 2 to 5 are "fairly" or "not very" satisfied from these issues. The least satisfied students are those who study at a school which they have ranked lower than their top five preferences. The pattern in Diagram 5 verifies the aforementioned associations. Similar patterns have been found for the satisfaction levels of almost all the aspects of school curriculum.

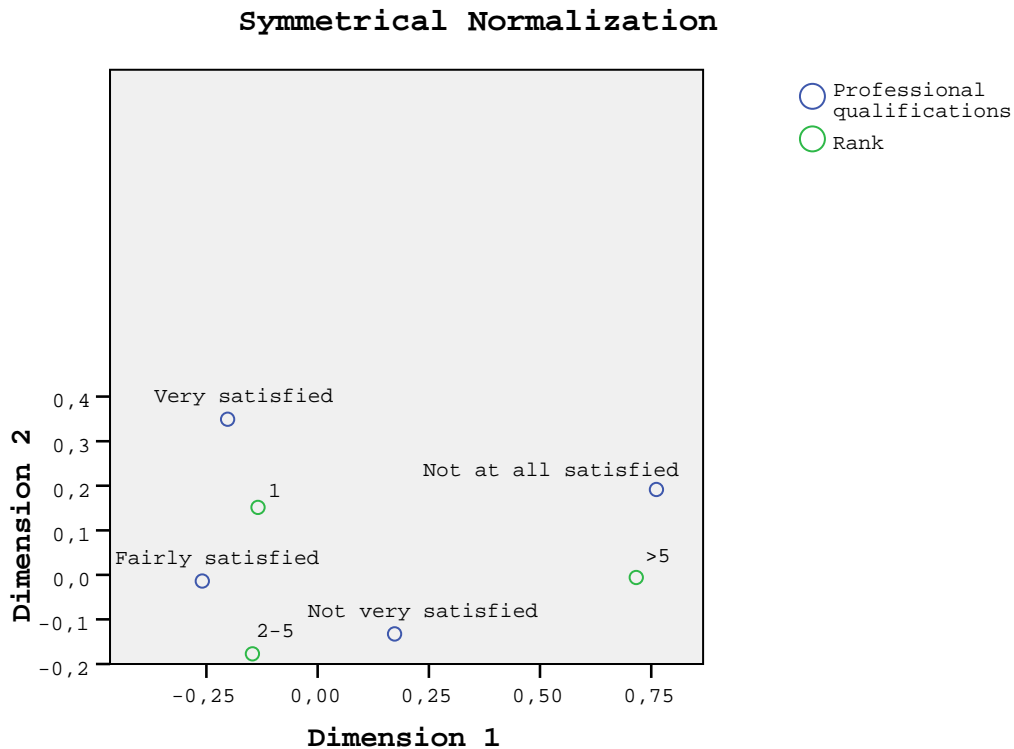


Diagram 5 Rank and satisfaction from professional qualifications

Work based education is provided to about half of AUTH students. Two out of three of these students think that the work based education programs are adequate or rather adequate. One out of four of these students think that these programs are rather inadequate; the rest students (less than one out of ten) express their absolute dissatisfaction from these programs.

Services of insufficient quality

AUTH student were given a list of eighteen potential problems of AUTH and they were asked to select five of them which are the most important in their opinion. In Table 6 these problems are presented in descending order according to their importance. Most students think that laboratories equipment is one of the five most neglected issues in AUTH. Students would like AUTH administrators to spend more of its resources to equip its laboratories.

Transportation is considered the second most important problem. There are no busses passing through university campus and bus stations to some destinations are far away from some schools. This problem can be solved only with external support. Transportation issues are a matter of an independent organization and AUTH can only request of its assistance.

Students' union and syndicalism are referred as the third most important problem. Answers to open ended questions in the same survey indicate that the dissatisfaction with students' union originates

from two issues: inactivity and lack of organisation of the union and involvement of political parties.

AUTH students do not feel safe in the university. The campus covers a large area which remains almost desolate and unguarded during the night. It seems that students would strongly support a policy that would allocate resources towards safety and patrol forces.

The combination of limited parking space with the aforementioned transportation problems and a large number of students using their own cars to move to the university brings parking in the top-five list of problems. Although parking is only allowed to AUTH members (instructors, students and administrative personnel) it is almost impossible for someone to find a free parking space during peak hours.

Table 6 Top five AUTH problems

Problem	Frequency
Laboratories equipment	41,0%
Transportation	40,4%
Students' union and syndicalism	38,5%
Safety	37,0%
Parking	35,2%
Limited number of postgraduate programs	34,4%
Insufficiency of instructive personnel	31,6%
Aesthetics of buildings	31,3%
Communal spaces	29,3%
Insufficient number of instructive personnel	28,5%
Cleanness	27,0%
Lack of cultural events	23,5%
Large number of students	20,8%
Lack of communication between instructive personnel and students	18,2%
Lack of information	14,3%
Insufficient organisation	13,7%
Financing	13,2%
Prospects of vocational rehabilitation	11,9%

Discussion

The empirical research presented in this paper has shown that AUTH should vastly improve its services as far as student accommodation and feeding needs are concerned. These services are mostly focused on supporting low income students. Financial problems can become a significant disadvantage for a student (Curtis & Klapper, 2005). Therefore, the improvement of AUTH accommodation and feeding services is a crucial point towards developing a framework with equal opportunities for every student. AUTH should also take care of its facilities. Parking space, recreation centres and grounds, modern buildings and laboratories equipment are among the top priorities for the primary customers of AUTH, its students.

This survey should serve as the initial ground for further research. The findings reveal the areas which need improvements but we cannot give a detailed about the directions of the improvement process. For instance, we know that AUTH students would like to see an improvement on laboratories equipment but we cannot tell what the exact problems of the equipment are. Is the equipment obsolete? Is it broken? Do students think that it should be available in greater quantities? Do they think that expendable supplies that should be used for teaching purposes are kept away

from them to be used for instructors' personal research? The survey presented in this paper cannot give answers to these questions. Each of the problematic areas needs its own survey and AUTH administration should implement policies that would support and finance related research activities.

Another important finding of this paper is the differences of the satisfaction level between different student groups. We have found that first year students are more satisfied from AUTH services than students in the next grades. This could mean that students enter the university with positive feelings but they get disappointed as years pass. AUTH should try to preserve students' initial positive feelings. The way this could be done is not clear from the survey findings. What is clear is that further surveys on students' satisfaction should take into account these differences and adjust sampling techniques accordingly.

The final point of this section is also the most important according to authors' opinion. The results indicate that students, who do not study at a school that was among their first choices, tend to spend fewer hours on attending classes and seem to be less satisfied with curriculum aspects of their school. These students seem to find studying a chore. The possibility of satisfying these students, as far as the curriculum is concerned, is very limited. Limited is also the possibility of getting brilliant, successful scientists out of this group of students. This is a problem of the system that regulates university entry and the Ministry of Education should consider of changing it in a way that would ensure that students in tertiary education do not study at a school which was not among their top choices.

References

- Aylor, B., & Oppliger, P. (2003). Out-of-class communication and student perceptions of instructor humor orientation and socio-communicative style. *Communication Education, 52*(2), 122-134.
- Bartholomew, D. J., Steele, F., Moustaki, I., & Galbraith, J. I. (2002). *The analysis and interpretation of multivariate data for social scientists*. Boca Raton, Fla. ; London: Chapman & Hall/CRC.
- Bjorklund, S. A., Parente, J. M., & Sathianathan, D. (2004). Effects of faculty interaction and feedback on gains in student skills. *Journal of Engineering Education, 93*(2), 153-160.
- Cook, R. W., & Zallocco, R. L. (1983). Predicting university preference and attendance: Applied marketing in higher education administration. *Research in Higher Education, 19*(2), 197-211.
- Curtis, S., & Klapper, R. (2005). Financial support systems: The student experience in England and France. *International Journal of Social Economics, 32*(1-2 SPEC. ISS.), 121-132.
- Deese-Roberts, S., & Keating, K. (2000). Integrating a library strategies peer tutoring program. *Research Strategies, 17*(2-3), 223-229.
- Fram, E. H., & Camp, R. C. (1995). Finding and implementing best practices in higher education. *Quality Progress, 28*(2), 69-73.
- Freestone, R., Thompson, S., & Williams, P. (2006). Student experiences of work-based learning in planning education. *Journal of Planning Education and Research, 26*(2), 237-249.
- Gardner, S., & Eng, S. (2005). What students want: Generation Y and the changing function of the academic library. *Portal, 5*(3), 405-420.
- Guolla, M. (1999). Assessing the teaching quality to student satisfaction relationship: Applied customer satisfaction research in the classroom. *Journal of Marketing Theory and Practice, 7*(3), 87-97.

- Hayden, H., O'Brien, T., & Rathaille, M. O. (2005). User survey at waterford institute of technology libraries. how a traditional approach to surveys can inform library service delivery. *New Library World*, 106(1-2), 43-57.
- Hennig-Thurau, T., Langer, M. F., & Hansen, U. (2001). Modeling and managing student loyalty: An approach based on the concept of relationship quality. *Journal of Service Research*, 3(4), 331-344.
- Koslowski III, F. A. (2006). Quality and assessment in context: A brief review. *Quality Assurance in Education*, 14(3), 277-288.
- Lambert, A. D., Terenzini, P. T., & Lattuca, L. R. (2007). More than meets the eye: Curricular and programmatic effects on student learning. *Research in Higher Education*, 48(2), 141-168.
- Martensen, A., Gronholdt, L., Eskildsen, J., & Kristensen, K. (1999). Measuring student oriented quality in higher education: Application of the ECSI methodology. *Conference Proceedings from TQM for Higher Education Institutions. "higher Education Institutions and the Issue of Total Quality"*,
- McKinney, K., Saxe, D., & Cobb, L. (1998). Are we really doing all we can for our undergraduates? professional socialization via out-of-class experiences. *Teaching Sociology*, 26(1), 1-13.
- McKinney, K., Vacca, K., Medvedeva, M. A., & Malak, J. (2004). Beyond the classroom: An exploratory study of out-of-class learning in sociology. *Teaching Sociology*, 32(1), 43-60.
- Michailidis, G., & De Leeuw, J. (1998). The gif system of descriptive multivariate analysis. *Statistical Science*, 13(4), 307-336.
- Michailidis, G., & De Leeuw, J. (2000). Multilevel homogeneity analysis with differential weighting. *Computational Statistics and Data Analysis*, 32(3-4), 411-442.
- Michailidis, G., & De Leeuw, J. (2005). Homogeneity analysis using absolute deviations. *Computational Statistics and Data Analysis*, 48(3), 587-603.
- Owlia, M. S., & Aspinwall, E. M. (1996). Quality in higher education - A survey. *Total Quality Management*, 7(2), 161-171.
- Palihawadana, D., & Holmes, G. (1999). Modelling module evaluation in marketing education. *Quality Assurance in Education*, 7(1), 41-46.
- Popli, S. (2005). Ensuring customer delight: A quality approach to excellence in management education. *Quality in Higher Education*, 11(1), 17-24.
- Price, I., Matzdorf, F., Smith, L., & Agahi, H. (2003). The impact of facilities on student choice of university. *Facilities*, 21(10), 212.
- van Eps, M. A., Cooke, M., Creedy, D. K., & Walker, R. (2006). Student evaluations of a year-long mentorship program: A quality improvement initiative. *Nurse Education Today*, 26(6), 519-524.