Do educational outcomes in Lebanese universities differ based on the academic model?

Diane Issa Nauffal
Lebanese American University, Beirut, Lebanon

Abstract

Purpose – The purpose of this paper is to examine differences in students’ perceptions of quality and satisfaction with their educational experience among four types of higher educational models, American, French, Egyptian and Lebanese, in Lebanon.

Design/methodology/approach – A sample of over 200 students from each of the seven universities included in the research study were surveyed. Their perceptions were sought on a range of demonstrable performance outcomes. These outcomes include the observance of democratic practices, the effectiveness of the teaching/learning experiences, the quality of academic and non-academic services, and relationships and destination upon graduation.

Findings – The findings indicate that universities adopting the American and French academic model, including the Lebanese university, tend to more readily involve students in institutional decision making at both the academic and non-academic levels in comparison to the university following the Egyptian academic model encouraging democratic practice among youth. Despite the considerable differences among the various institutional types in the philosophy of education, the perceptions of the purposes of higher education and the pedagogical approaches they adopt, students generally expressed satisfaction in the quality of their university education.

Research limitations/implications – With the continuous establishment of universities in Lebanon and the region following different academic models, the research findings may serve to inform policy makers and academic leaders of students’ perceptions of quality and satisfaction.

Originality/value – No such comparative study has been conducted to determine the satisfaction of students with their overall higher education experience in Lebanon and the region.

Keywords Educational philosophy, Higher education, Students, Lebanon, Stakeholder analysis

Paper type Research paper

Introduction

The concern with quality in higher education is by no means new. Vroeijenstijn (1995) notes that quality has always been part of the academic tradition and that what has changed is the relationship between higher education and society. Higher education which was mainly producer oriented, directed towards the interest of its scholars, has shifted emphasis focusing more on the interests of a larger population of stakeholders as students, parents, employers, staff and governments (Green, 1994; Slaughter and Leslie, 1997). While there is no overall consensus among academics, policy makers and other concerned parties on what constitutes quality in higher education (Lakomski and Marshall, 1998), different stakeholders assign different values to criteria of quality based on their own goals (Donald and Denison, 2001; Harvey and Green, 1993).

This paper focuses on students as stakeholders and on their perceptions of quality in higher education, taken from a larger study of the Lebanon (Nauffal, 2005). It raises interesting issues about educational models and organizational styles in higher education. It provides a unique setting which is comparative, in itself having so many
institutional and educational models under one roof. The uniqueness of the setting however seems insignificant, particularly in times of multiculturism and globalisation and where knowledge and skill are a source of relative economic advantage (Thurow, 1999). The different educational models produce different core activities in teaching and learning and varied educational outcomes, the “quality” of which is the basis for competition among the institutions of the Lebanon. With the expansion of the private sector of higher education regionally, this study may serve to inform education policy making and planning.

Quality of a university education

The literature on students’ perspectives on quality indicates that the quality of a university education is a function of many variables such as the quality of teaching, the quality of a university experience, possibilities of employment, career horizons, opportunities for personal growth, and many others. Students understand that the market value of their education is a function of the perceived quality of education (Ortmann and Squire, 2000). As quality of education is difficult to evaluate directly, the market value of a degree is a function of the institution’s high-academic standing and relative merit (Keith, 2001).

Institutional ratings are positively influenced by a range of factors such as size (number of degrees awarded), institutional characteristics (student aptitude, student admission selectivity and student graduation rates) and faculty scholarship outcomes (research funds, research publications and consultancy rates) (Keith, 2001). As noted by Benjamin and Hersh (2002) however, these ratings depend mainly on input variables such as student aptitude, student-faculty ratios, financial and institutional resources and do not measure the knowledge, skills, and competencies that students develop as a result of their university education. The degree to which an institution develops the abilities of its students and facilitates transformations in their understanding is referred to as “value added” or what Harvey and Green (1993) have defined as the “transformative” implication of the term “quality”. It is the “value added” that reflects the quality of an education attained which is enhanced primarily through effective teaching and learning practices.

Teaching and learning effectiveness

Teaching effectiveness has been found to be multidimensional; in other words, there are different components to effective teaching. From the perspective of faculty members, effective teaching entails the development of critical thinking, the enhancement of a deep understanding of principles, the establishment of links between theory and practice and the acquisition of lifelong learning skills (Knapper, 1990). According to employers, effective teaching instils in students qualities such as flexibility, creativity, as well as communication, analytical and problem solving skills. From the perspective of students, subject knowledge, organisation, efficiency, self-confidence, clarity of objectives, breadth of coverage, value of assessment, availability, expectation level for students, class orientation and openness were some identified characteristics of effective teaching (Feldman, 1976; Sheehan and DuPrey, 1999; Marsh and Roche, 1997).

While what constitutes effective teaching has not evolved profoundly over the years as indicated by a literature review, any changes in approaches to teaching and learning in higher education have also been rare (Lueddeke, 1999). The prevailing learning approach is the lecture approach (Lueddeke, 1999). This approach is the product of
an educational system that teaches students to view instructors as authorities who relate truth and are responsible for student learning (Greene, 1988) while students assume a role of passivity. According to Barr and Tagg (1995), students must be active discoverers and constructors of their own knowledge for them to be able to uncover knowledge. For deeper understanding they must actively engage in learning (Howell, 2002; Cross, 1999), reflect on learning experiences from a range of perspectives, form concepts and develop theories (Gardner and Korth, 1997). According to Clark (1997, p. 242) an efficacious way to educate students is through their involvement in research which serves as “an important mode of teaching and a valuable means of learning”. Jacob and Eleser (1997) claim that depriving students of such learning experiences denies them of their independence and reduces their decision-making power.

An effective institution, as Astin (1985) asserts, is one that can affect its students and faculty favourably through the simultaneous consideration of inputs, environments, and outcomes, an essential component of any quality management strategy. Based on these constituents of quality management, this study explores the impact of the various historically grounded institutions of higher education in Lebanon, which follow different educational models, on a range of performance outcomes. More specifically, it examines the different modes of operation adopted by the universities to facilitate the realisation of clear tangible mission objectives reflected in a set of demonstrable outcomes, such as the observation of democractic practices, the effectiveness of teaching/learning experiences, the quality of academic and non-academic services and student destination and employability.

The higher education system in Lebanon
Three realities shape the Lebanese higher education system which is composed of several private universities and a sole public institution. These realities are the religious and secular domination of the establishments, the foreign origin of the institutional patterns as well as the challenges of indigenisation of the universities as part of the developing process. The religious and secular denominations of the individual universities and their response to indigenisation vary considerably. The institutional patterns followed by the universities of Lebanon are derivatives of the French, American, and Egyptian referential models of the modern university with appropriate adaptations to particular circumstances. The diversity of the historical origins of these institutes is as substantial as the multiplicity of the organisational structures, the modes of governance, the ethos of the academic profession, the procedures for academic assessment and examination, and myriad other elements.

In 2002, the time this study was conducted the Lebanese higher education system consisted of 24 colleges and universities (CERD, 2001). Only eight of the 24 universities and colleges were selected for the study. Among the institutions not included in the study were those whose official status of “university” was questionable; or those that had a total student enrolment of less than 2,000. Of the eight universities, seven were private institutions. Four of the private universities follow the American educational model; two follow the French educational model; and the other follows the Egyptian model. Institutes following the American educational model prevail in the country, while there is only one institute following the Egyptian educational model and two institutes following the French model one of which refrained from participation. The State University was also included in the study.
It is easy to detect that there is no unified higher educational model in Lebanon. The differences are reflected in the language of instruction, the duration of study periods, the style of examination, the type of courses offered, the audience attracted by the university and the cost of education. The American academic model is built around a credit-point course system. It includes mandatory and elective components with frequent assessment of student learning. The language of instruction is English. The American-patterned universities charge the highest fees which are unaffordable by the large majority of the population given the average income of Lebanese citizens (Iskandar, 2001) thus they tend to attract more affluent students from the Arab States.

The French academic model is based primarily on mandatory year-long required courses and end-of-year exams. The Saint Joseph University however, which has strong ties with the University of Lyons in France has recently (2003) adopted a system similar to that of the American credit system based on modules, as is the case in most European universities. The purpose of such a shift is to provide their students with mobility, particularly to France and Europe, through the transfer of modules. The language of instruction in the French educational model is primarily French, although some courses are offered in English. The tuition fees seem to be more economically affordable by average income earners of the population.

The Egyptian academic model is based on mandatory year-long required courses and end-of-year exams. Arabic is the primary language of instruction. The university has liberty of action and flexibility of programs allowing students to pursue their education through correspondence or by merely passing examinations given by the university thus attracting Arab students from outside Lebanon, particularly Syria, Jordan and Palestine. The tuition fees are somewhat similar to those of the French educational model and hence attract students from average earning income families.

The Lebanese University bases its educational methods and its academic organization on the French model of higher learning in the majority of its institutes dispersed across the country and has adopted recently the American credit system in a very few of them. The primary languages of instruction are French and Arabic, although English has become a medium of instruction for some majors. The government funds the Lebanese University and tuition fees are nominal rendering it accessible to the vast majority of the population. It is important to note however, that most private universities which depend in their finances mainly on student fees and private donations tend to extend financial support to their students in the form of financial aid, work-study aid, loans, assistantships and scholarships to alleviate the pressures associated with the high costs of private education. Approximately, 50 per cent of the higher education cohort is enrolled in the Lebanese University as compared to 40 per cent in private universities (CERD, 2006). All universities have a distinct set of admission criteria which vary in accordance with the field of study however success in the official Lebanese Baccalaureate II or its equivalent for foreigners is the basis for admission to any institute of higher learning.

**Method**

The study aims at determining the satisfaction of students with the quality of their overall university experience. It attempts to analyze the impact of the different educational models on a range of demonstrable performance outcomes from the perspective of the students. These outcomes include the observance of democratic practices, the effectiveness of
the teaching/learning experiences, the quality of academic and nonacademic services, and relationships and destination upon graduation. To achieve this end, the survey research strategy, which involved the administering of a specially designed student satisfaction questionnaire, was adopted.

**Sampling procedure**

To enhance the “validity” and permit the “generalisability” of the findings to the population of students of the various universities in Lebanon, the sample had to be chosen with prudence. A multistage sampling design was utilized where various sampling methods – stratified sampling, cluster sampling and simple random sampling – were combined to take advantage of the positive aspects of each method. In the choice of universities, special attention to sampling techniques was not necessary, as the target population consisted of all universities if they met the specified criteria. In the choice of the student sample, the working population was third or fourth year university students considered to have sufficient higher education experience permitting them to provide rational responses and valid input while completing the specially designed student satisfaction questionnaire. The strata within this working population were the seven universities with equal representation of each stratum. Each stratum was then divided into several clusters representing the various faculties and schools within the universities. These clusters were once again divided into clusters representing the different departments within the faculties and schools. Simple random samples of students were drawn from the final clusters formed.

**Student sample for questionnaire**

The selection of an appropriate student sample size was of major concern; first, to ensure representativeness of the population while maintaining a high level of precision and reliability of the sample estimates; second, for economic considerations; and third, for time considerations and a desire to complete the data collection process within a fixed time frame extending from October 2002 to June 2003. The size of any sample depends on the degree of precision desired, the variability of the data sampled, and the type of sampling employed, namely level of tolerated error accepted. A sample size of 1,470 students, 210 students from each university (stratum), was the appropriate sample size needed if simple random sampling was adopted. Such a sample size was more than adequate for stratified sampling methods. The sample size allowed the achievement of a desired 99 per cent precision level, a sample variability of 0.83 and a set tolerable error of 0.057.

**Instrument design**

To measure student output, a questionnaire was designed around four themes, namely; the observance of democractic practices, the effectiveness of teaching/learning experiences, the quality of facilities and services and relationships and student destination. Research literature relevant to student satisfaction with the outcomes of higher education and their relationship to the concept of quality and institutional effectiveness informed the construction of the student questionnaire (Sheehan and DuPrey, 1999; Marsh and Roche, 1997). The 32 student output items were closed-ended five point Likert scale with responses ranging either from strongly agree, agree, neutral, disagree through to strongly disagree or from very high, high, average,
poor through to very poor. The 32-item questionnaire was constructed in English, the language the investigator is eloquent in. Respondents in the French, Egyptian and Lebanese institutions where the prime language of instruction is not English were given a translated Arabic version of the questionnaire to complete since Arabic is the native language of the country. Respondents in all universities however, were given the choice to complete the questionnaire in either Arabic or English according to their preference.

A pilot study was conducted in two stages. The first stage involved a sample of 40 third-year students, ten from each American-modelled institution. All students completed the questionnaire in English. In order to discover potential pitfalls in the translated questionnaire, two students from each American modelled university agreed to fill out the Arabic version of the questionnaire alongside the English version. Upon completion of the questionnaires, respondents discussed with the investigator various issues as format, clarity, language, vocabulary, ambiguities and the conceptual difficulty for both the English and Arabic versions. Modifications in the questionnaires were then made based on the findings of the initial pilot study. This process of instrument design was achieved through an approach known as the logical or rational approach (Murphy and Davidshofer, 2001).

There are potential problems in employing this approach for ensuring reliability and validity of the developed instrument as noted by Nunnally and Bernstein (1994). These problems are due not to the way in which questions or items are constructed but to the inclination of researchers not to evaluate the instruments after designing them. This includes the use of statistical techniques that have been developed to assist in the evaluation of the whole instrument and the individual questions.

The second stage of the pilot study involved administering the questionnaire to 140 students in three universities. The stratification and clusters in the pilot sample were similar to those of the actual sample. Two statistical tools were then used to test the reliability and validity of the constructed questionnaire. The first involves the use of Cronbach’s coefficient $\alpha$ of reliability used for scales such as rating or the Likert scale that present a set of attitude statements (Openhiem, 1992). Cronbach’s $\alpha$ coefficient measures how well a set of items measures a single one-dimensional latent construct (Stevens, 2002). The reliability coefficient for the student questionnaire was found to be $\alpha = 0.9215$. The problem of reliability, difficult as it is still retains the simplicity of a simple numerical index for its representation. The validity however, is usually more difficult to estimate.

Campbell and Fiske’s (1959) convergent and discriminant validity paradigm was adapted for the questionnaire. This paradigm is also known as a panel design (Lanza and Carifio, 1992) or the method of triangulation (Borg and Gall, 1992). The method focuses on having an independent judge rate whether items that are supposed to reflect some objective specification logically do reflect the objective specification. Replication strengthens the design and thus if two judges rather than one agree that the item reflects the objective specification then their judgements are convergent. This was actually the case where the judgement of three judges converged, thus providing evidence of the item’s logical validity (Dagostino and Carifio, 1993).

**Statistical analysis**

Initially, a one-way ANOVA was conducted to determine whether there were significant differences in the mean values among the four academic models on each
Results
Significant differences were found among the institutional types on all items of the questionnaire. In relation to the observance of democratic practices, the findings indicate that universities adopting the American and French academic models including the Lebanese university tend to more readily involve students in institutional decision-making at both the academic and non-academic levels in comparison to the university following the Egyptian academic model. The American-patterned institutions more than the French, Egyptian and Lebanese institutes however promoted democratic practices through the open and free discussion of political, social and religious issues in courses.

In terms of teaching and learning, the results indicate that student satisfaction levels in private universities – American, French and Egyptian – clearly surpassed those in the public Lebanese University. Considering the private universities, students in American universities expressed an overall greater satisfaction in their teaching/learning experiences than those in the French and Egyptian universities. Particularly, students in American-patterned universities believed that the course content and learning outcomes where specified clearly, that the method of instruction was innovative with the use of modern technologies, that courses were designed to encourage student participation in projects and research activity, and that the educational system tends to support course work choice and flexibility essential for maintaining a liberal arts education. A setback however was the larger class size in the American universities, a feature shared by the Lebanese University. Finally, students in the American and Egyptian universities enjoyed more opportunities of instructional assistance beyond the confines of the classroom both with the instructor and with their peers.

On the satisfaction measures, students in the American and French universities seemed to be more satisfied with academic services as library resources, electronic resources, labs and equipment. In terms of non-academic services, the American and Egyptian universities surpassed the French and Lebanese universities in most aspects such as extra curricula activities, recreational services and student services including housing, food and health services.

Students in American and French modelled universities were found to be more positive in relation to their career prospects, particularly in terms of employability in the local Lebanese, the neighbouring regional Arab states and the international markets and in the supporting role their instituion plays in establishing links with prospective employers. Students of the Lebanese and French University however had more positive perceptions of continuing their studies in internationally renowned institutions.

Discussion
Significant differences were found among the educational models[1] in the extent to which they involved students in the decision-making process and in giving them some
ownership of the educational process. Students enrolled in universities following the Western educational model – American and French – including the Lebanese University perceived themselves to be actively involved in academic and to a larger degree non-academic institutional decision-making in comparison to those enrolled in the university following the Egyptian model. Implementation of democratic practices were also found in relation to course design in that the American and Lebanese patterned institutions more than the French and Egyptian institutions permitted for the free and open discussion of all political, religious, and social issues.

At the pinnacle of the organizational hierarchy of the Egyptian academic model in Lebanon is the Egyptian Minister of Education. Control through centralized bureaucracy is the dominant characteristic of the Egyptian higher education system which extends across the borders to the Lebanese institution. The regulatory role of the Egyptian state encompasses both internal and external governance, totaling the state’s jurisdiction over administrative and academic matters (Cambar, 2001; Abdel-Motaal, 2002). The high level of statist coercion and regulation in the election of the student body and the appointment of university officers curtails student and faculty participation in university affairs and stifles the emergence of democratization processes and practices (Farag, 1990). An element of concern would be the counterproductive effects resulting from giving pupils a voice “if such voices are ignored or incorporated into structures where … the impact is not felt” (Davies, 2000, p. 7). It seems though that the comparatively low-tuition fees, the flexible modes of study and the diverse fields of specialization including medicine, pharmacy, engineering, law and others outweigh the possible counterproductive effects.

Unlike most Arab states, the role of the Lebanese State focuses more on accreditation and licensing allowing considerable administrative and academic institutional autonomy (El-Aouit, 1997). The American, French and Lebanese academic modelled universities as variants of the western academic model acknowledge the collegial aspect of the academic profession leaving considerable space for internal self-regulation (Maasen, 1997), and therefore, the democratic principles and their workings or processes are an integral constituency of the model. These academic models acknowledge students as stakeholders allowing representation in governance structures. Davies (2000, p. 2) notes that “… systems for pupil voice … are part of a mature democracy that ensures rights and responsibilities for all its citizens and subjects of whatever age”. The institutes of higher education in Lebanon are not embedded in a mature but rather an ailing democracy. Enduring themes of “assertion” and “competition” among the 18 sectarian constituencies of the Lebanese Republic have accompanied its development. These themes have fuelled endless conflicts over the past two centuries and sporadic outbursts of deplorable and inhuman violence in 1860 (Makdisi, 2000) and over the past 40 years (Johnson, 2001). Advocacy of democratic practices and principles have been appreciably hampered to curb student dissent and discord particularly at times of violence. The universities in Lebanon have not been able to escape completely the overarching reach of the sectarian culture of Lebanon.

Education, particularly higher education through its diverse functions of teaching, research and community involvement, is considered a decisive force for shaping the democratic development of societies (Kohler and Huber, 2006). “Democracy”, however:

[...] can only flourish with strong supportive institutions and laws, and a pervasive democratic culture, which encompasses democratic values, ways of knowing and acting,
ethical judgments, analytical competencies, and skills of engagement (Directorate General IV: Education, Culture and Heritage, Youth and Sport of the Council of Europe, 2006, p. 2).

A Lebanese political scientist notes, “a democratic government needs a democratic political culture, and vice versa” (Harik, 1994, p. 56). Along similar lines, it seems plausible to conclude that a democratic academic model is effectively sustainable in a culture that endorses the legitimacy of democracy.

The debate concerning the purposes of higher education has oscillated since the days of Hippocrates between vocationalism, which stresses the importance of skills and their transferability and truth-seeking which stresses the importance of knowledge and understanding (Brown et al., 1997). In their assessment of student learning in higher education, Atkins et al.’s (1993) outline of the purposes of higher education goes beyond the vocationalism and truth-seeking views to include:

- specific vocational preparation;
- preparation for general employment;
- preparation for knowledge creation; and
- general educational experience.

Accompanying the different views of the purposes of education are varied values assigned to student learning and achievements. Rowntree (1987) indicates that one must look into the student qualities and achievements that are actively valued and rewarded by an educational system to discover the truth about the system.

Differences among the educational systems did appear in terms of the evaluation of the teaching and learning experiences. Distinguishing features found to be more pronounced in the American educational model were: first, clearly stated learning outcomes; second, the innovative instructional approaches and use of technologies; third, the flexibility and support of course work choice essential for maintaining a liberal arts education; and finally, course design that encouraged student participation in projects and research activity. The final difference may be attributed to the variation in the job descriptions of faculty members. In most American-patterned universities the active involvement of faculty members in research is considered a basic component of a faculty member’s job description and essential for promotion and progression in rank. Although research activity of faculty members is highly appreciated in the French, Lebanese and Egyptian patterned universities, excellence in teaching seems to be the sole basic component of a faculty member’s job description and a sufficient requirement for progression. It then seems that the level of faculty involvement in research activities facilitates its incorporation in course design and in turn student involvement in such research activities and projects. While the integration of research in curriculum and course design seemed to be a distinguishing factor among universities, the incorporation of technical or experiential components in curriculum design was not except for students enrolled in the Lebanese University.

A characteristic of the teaching/learning process more clearly associated with the French and Lebanese educational model than the American and Egyptian model is the limited possibilities for individual students or groups of students to seek additional instruction or assistance outside regular class sessions either by the instructor him or herself or by their peers. Such a characteristic of an educational system that limits the teaching/learning process to the classroom sets the professor on a pedestal,
distancing him or her from the students and thus limiting possibilities for student-staff interaction and the exchange of information and ideas that could prove essential for effective learning. It reinforces for students the role of instructors as authorities who relate truth. In a study conducted by Terenzini and Pascarella (1980), they found that while not all types of informal student-faculty contact were of equal importance, those that involved the discussion of intellectual matters had more impact on academic achievement. Faculty members thus do play a significant role in the academic achievement and skill development of students, a role that as noted by Terenzini et al. (1984) need not be confined to the classroom. As there is substantial research evidence to suggest that the active engagement of students and faculty members in the teaching/learning process fosters critical thinking and student learning (Kember and Gow, 1994), it would seem that attention should be given to this “arena of social interaction” (Howard, 2002, p. 764) which encourages openness, competition, pluralism and tolerance of differences, fundamental requirements of a democracy.

Most of the differences among the academic models may be attributed to differences in the philosophy of education. The motto of the two historically grounded universities, “That they may have life and have it more abundantly”, and “to strive, to seek, to find, and not to yield” seem to best express the American philosophy of education which is to develop in each individual the knowledge, interests, ideals, habits, aptitudes and powers whereby the individual will find his or her rightful place in society. The distinctiveness of the American universities goes beyond academics to the bodies of student affairs. It is these bodies that represent a distinctive quality attribute of American universities, thus providing a competitive edge over other universities in the Lebanese higher education market. John Waterbury, the President of the American University of Beirut (2004) explains that it is such provision “that sets us apart”. These provisions do not come without a price for students in the form of substantial tuition fees in comparison to other universities thus limiting access to students of affluent socio-economic backgrounds or students of outstanding academic achievement through scholarships and grants of financial aid.

The French philosophy of education adopted by the French and Lebanese academic models is “that the training of the intellect shall be supreme, that it is the mind which should be developed rather than the physical being” (Hall, 1931, p. 375). Logic in thought, in expression of ideas, and in command of details thought to enhance the ability of an individual to reflect and reason are valued qualities that are inculcated in students enrolled in universities adopting the French educational system (Hall, 1931). This philosophy implies that only the intellects are qualified to be leaders and that their superior education and training facilitates social mobility and great opportunities. It comes as no surprise then that, in effect, the French University in Lebanon shares with the American universities quality of academic services but lingers behind in the standard of extracurricular activities and student services such as housing, food and health services comes.

While the differences between the French and Lebanese academic models are insignificant except in the quality of academic and non-academic services and facilities, the Egyptian academic model seems to be a blend of both the French and American models. In effect, the Egyptian-modelled university is a hybrid assortment of the French-British-Egyptian versions of the continental model of governance or as Mazawi (2005) claims a “radicalized” continental model governed by Egyptian authorities and
appointed committees which negates individual and institutional autonomy. In this model, emphasis is placed on both the mental and physical development of the student. It shares with American- and French-modelled universities the quality of academic facilities but also stresses the importance of offering students opportunities for involvement in extra curricula and recreational activities and providing student services including housing, food and health services.

Unlike the private universities in the country, the State University has had to deal with the issue of mass higher education alongside the growing pressures to perform, excel and compete coupled with the challenges of new forms of learning, new technologies for learning and new competences and skills required of graduates. It has had to deal with these issues with fewer resources in view of declining public funding, a trend which seems irreversible in light of escalating state debts and annual budget deficits looming over the government’s shoulder. Other challenges include the physical infrastructure at the State University which may be considered inadequate in terms of buildings, laboratories, libraries, offices and outdoor and indoor recreational facilities (El-Amine, 1997) and the almost complete absence of research facilities and opportunities at the university which makes it difficult for faculty members to remain up-to-date with the latest developments in their fields and restricts considerably their research productivity (Tabbarah, 2000). Accompanying these challenges has been an increasingly over-arching regulatory role of the state which has lead to the steady relinquishing of the University’s institutional autonomy. As a result, the academic appointment of most staff members including the deans and the President of the university have become political appointments and the selection criteria of academic staff members no longer emphasizes quality academic qualifications. All these factors undoubtedly have had an adverse effect on the quality of education as suggested by the survey findings.

That most students in each of the institutional types viewed positively their prospects of employment and possibilities of graduate studies in internationally renowned universities reflects an overall satisfaction with their university education. The findings simply confirm that the notion of quality is problematic and that satisfaction is multidimensional. They also suggest that many of the differences among the universities may be attributed to factors as prior educational attainment and socio-economic background rather than institutional approaches which needs to be explored further.

Note
1. Detailed analysis is available from the author on request.

References
Atkins, M., Beattie, J. and Dockrell, B. (1993), Assessment Issues in Higher Education, Employment Department, Sheffield.


Dagostino, L. and Carifio, J. (1993), *Establishing the Logical Validity of Instructional Activities for Teaching Reading Evaluatively*, University of Massachusetts, Lowell, MA.


**About the author**

Diane Issa Nauffal is currently an Assistant Professor of the Department of Mathematics and Computer Science and Director of Institutional Research and Assessment at the Lebanese American University, Lebanon. Her research interests include areas in leadership, management, organizational culture and change in educational institutions with emphasis on higher education; institutional research and assessment involving both qualitative and quantitative approaches; and research in the field of mathematics education. She teaches topics as operations research and project management, statistics, qualitative and quantitative methods of analyses, mathematics education. Diane Issa Nauffal can be contacted at: diane.nauffal@lau.edu.lb

To purchase reprints of this article please e-mail: reprints@emeraldinsight.com
Or visit our web site for further details: www.emeraldinsight.com/reprints
This article has been cited by: