

Outcomes of Receiving a Master's Degree in "Rehabilitation Management" on Graduates' Professional Lives

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Objectives: The aim of this study was to determine the outcomes of receiving a master's degree in "Rehabilitation Management" in Iran on the professional lives of graduates, as reported by them.

Method: A questionnaire consisting of open and close-ended questions was e-mailed to 75 graduates and alumni of the course, graduated since the beginning of implementation of the course in Iran, from 1997 to 2003. The total response rate was 52/75.

Results: Results overall indicated that 67% of graduates believed attending the Rehabilitation Management post-graduate course was worth the costs and 87% mentioned it as 'very effective' or 'relatively effective' on their present quality of job performance.

Conclusion: Findings could serve as a baseline for periodic evaluations and revisions of the Rehabilitation Management curriculum in the future and also for comparisons with other management courses.

Key words: Rehabilitation management, Course outcome evaluation, Graduate, Alumni

Introduction

Rehabilitation management is a relatively new field of higher education in Iran. Although still a small field compared with others, it is expected to grow in the near future. Through the years 1997 to 2003, only the University of Social Welfare and Rehabilitation Sciences offered this Master of Science course. Since 2004 "Iran University of Medical Sciences (IUMS)" and from 2007 "Ahvaz University of Medical Sciences" began to offer this course too. This academic program emphasizes on training experts in management of rehabilitation services. Although few in number, this educational course is important in that it reflects the desire to establish rehabilitation management as a separate field due to the fact that it requires knowledge, skills, attitudes and values distinct, at least in part, from those needed in other fields of management.

As a generally accepted definition, outcomes are the end results of a program for the people the program is intended to serve (1). Finding the outcomes of a graduate professional program from the point of view of the graduates involves measuring the perceived effects that the program has had on them, including how the program may have affected their careers (1).

In all graduate and post-graduate professional programs it is important to know what outcomes were achieved by the students who graduated from that program (1). This is even more important about a program that has been recently launched and has not as yet proven to be reaching its goals. In fact, a changing environment requires any educational institution to make assessments and define new ways of better fulfilling its mission. (2)

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One of the most familiar ways of doing this is the taxonomy in which outcomes are categorized as either cognitive or affective. Cognitive measures have to do with behavior that requires the use of high order mental processes such as reasoning and logic; affective measures deal with behavior that relates to the student's attitudes, feelings, and personality. Thus affective outcomes include the development of self-concept, values, and beliefs. While cognitive outcomes may be effectively measured during the students' academic careers, the perceptions of alumni are a necessary component of the assessment of affective outcomes.

Although the importance of assessing the impact of academic programs has been well established (3, 4, 5, 6, 7, 8, 9), there has been little research on the impact of university-based, graduate or post-graduate level programs on their alumni in the world, and especially in Iran. Unfortunately, those outcome assessments that have actually been carried out reveal relatively little about lasting impacts of the program and must be supplemented with other data (10).

Assessment must focus on tasks where students can show application of their skills and knowledge in a business-world context (11). There are examples of study projects around the world demonstrating that students were not prepared adequately for integrating their academic knowledge and skills with their job responsibilities (12, 13). Student surveys conducted in academic outcomes assessment most commonly target three groups of students: continuing students, graduating students, and alumni (10).

A rather frequent confusion exists between two different purposes of academic outcome assessment: those assessment efforts aimed at assessing individual student's results for the sake of student feedback and development, versus assessment aimed at evaluation of the programs or courses themselves (3). The latter, which is a more contemporary approach, usually measures student achievement of designated program learning outcomes as a result of their exposure to the program (3). In other words, it demonstrates the extent to which a university course or program does what it says it intends to do, thus reflecting accountability of the educational program to students, faculty professionals, employers who hire a university's graduates (14), and also to educational policy makers.

The purpose of the present study was to assess the professional outcomes such as the required

knowledge, skills and business perspectives, as perceived by the students, of receiving a master's degree in Rehabilitation Management in Iran, during the period 2003 to 2007.

Materials & Methods

For this study completed in 2007, graduating students and alumni of "Rehabilitation Management" master's degree course from the University of Social Welfare and Rehabilitation Sciences (USWRS) and Iran University of Medical Sciences (IUMS) were surveyed. Both universities are public institutions located in Tehran city and are the first to offer master's degree courses in rehabilitation management in Iran. They were the only universities offering the degree at the time the research was conducted. Both universities used full-time faculty, and their curricula were nationally recruited.

First, the total list of Rehabilitation Management graduating students and alumni of both universities was acquired. This resulted in a list 75 graduating students and alumni: 63 from USWRS, and 12 from IUMS. Of the total 75 people, 6 were inaccessible because of changes in address and phone number. A survey questionnaire and cover letter were sent by e-mail after explaining the study to each participant by telephone. For those who did not respond at the expected time, a second e-mail (and then a third one if necessary) was sent one and two months after the first. Finally, a total of 52 responses were received, resulting in an overall response rate of 69.3%.

The questionnaire which was designed by the researcher asked about graduates' perceptions regarding the extent to which their rehabilitation master's degree had resulted in different outcomes.

The questionnaire consisted of 27 questions categorized into three parts: 1- demographic questions, present and previous job titles; 2- open-ended questions inquiring about the graduates' expectations for studying "rehabilitation management" and about their perceptions of the outcomes of completing the course, and 3- likert-type questions on the effects of the course on their competency in their jobs. At the end of the questionnaire they were asked if they thought attending the course was worthwhile overall.

In order to verify the validity for the instrument, a total number of four experts who were the founders and pioneers in the field of rehabilitation management education were asked to review the questionnaire. The purpose of the review was to ascertain that the content of the questionnaire appeared to cover the

major outcomes expected for graduates of the rehabilitation management master's degree course and whether there was any other important issue missing in the content. The experts were in general agreement that the outcomes being measured were appropriate for graduates of rehabilitation management master's degree program. A few changes were made based on their suggestions. Internal consistency for part 3 of the questionnaire was determined using Cronbach's coefficient alpha, which was determined to be 0.79.

Results

Description of respondents

A total number of 52 graduates completed and sent back the questionnaire. The age range of the respondents was 25-46 (34.5±6.4) at the time of the survey. The male/female ratio was 31/21.

Job situation before and after education

As it can be seen in Table 1 the graduates were classified into 4 groups, according to their job situation; 1- Manager (Top manager, Middle manager, Manager-consultant, vice-manager), 2- Staff in a related organization (Welfare Organization, Red Crescent Organization, Veterans' Organization), 3- Therapist and 4- unemployed.

Table 1: Job situation of graduates before and after attending master's course of rehabilitation management

Job situation	Time	Before attending the course (%)		After attending the course (%)	
		Number	%	Number	%
Manager	Public	7		15	
	*Non public	2		2	
	Total manager	9	17%	17	33%
Staff in a related organization	Public	12		18	
	Non public	-		-	
	Total staff	12	23%	18	35%
Therapist	Public	22		9	
	Non public	3		7	
	**Community service	4		-	
Total Therapist	29	56%	16	31%	
Unemployed		2		1	
Total		52		52	

*Non public: Means private or NGO.

**Community service: The Iranian Law mandates all people who graduate from public universities, in which education is free of charge, to work for a certain period of time in places in the country determined by the government where their services are needed, with a predetermined amount of salary.

It can be seen that 50 of 52 respondents were employed before attending the course and after graduation this rose to 51. The total number of alumni who had a managerial position rose from 9 to 17 and of those who had a staff position in related departments increased from 12 to 18. With a more precise look we can see that the increase in number of people in managerial and staff positions is totally limited to public centers. On the other hand, in the non-public sector we can see a rise in the total number of people who have occupied a therapist position. It must be noted that of those 6 people who were either in community service or unemployed before attending the course; 4 were employed in a therapist position in a non public center, 1 remained

unemployed and 1 was employed in a managerial position in a public center. Only 2 graduates had a managerial position in the non public sector. These were the same people who were employed in those positions before starting the course.

Expected and Perceived Achievement of Skills (answers to the open-ended questions)

Figure 1 shows students' expected and perceived achievement of skills from completing the course.

As it can be seen, two of the most stated skills which the graduates had expected to achieve were "skills for management of rehabilitation centers" and "planning skills" (mentioned by 43 and 15 of 52 respondents, respectively). Results showed that 12

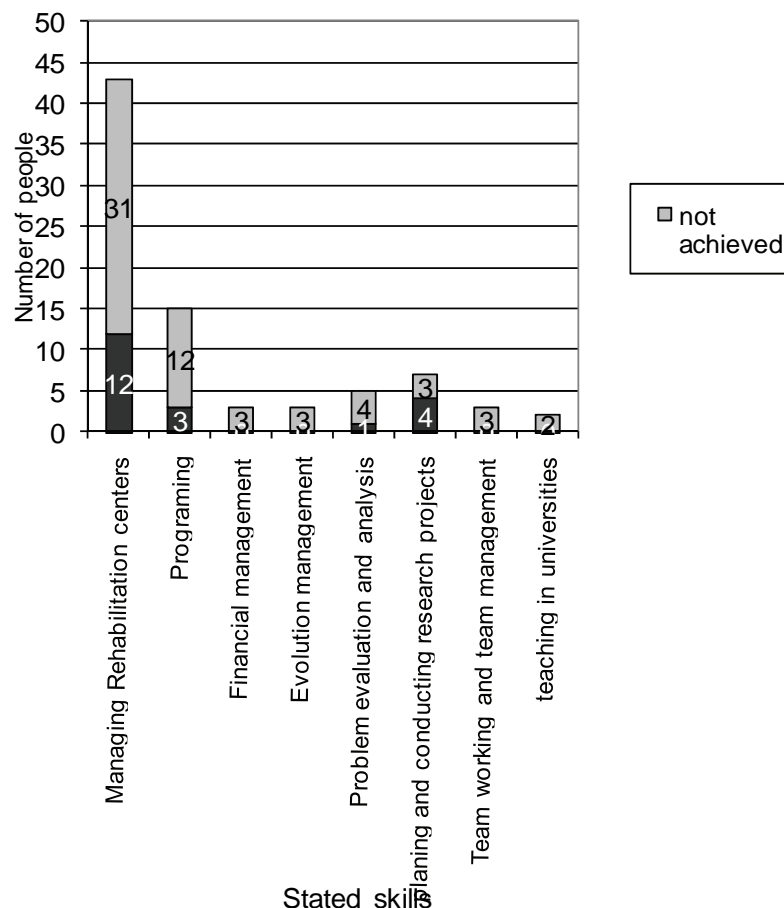
of 43 (28%) graduates who had expected to achieve rehabilitation management skills believed that they had achieved the skill, and 3 of 15 (20%) who had expected to achieve planning skills stated that they had achieved the skill.

The highest ratio in terms of expected skills to achieved skills belonged to "the ability of planning and conducting research projects" which was about 57% (4 out of 7). In this regard the graduates' opinions about the course effectiveness in improving their research skills and its utilization at their work place were also asked irrespective of their expectations, using a close-ended likert-type

question. The results showed that overall 43 out of 52 graduates (83%) evaluated their research skills achievement as acceptable or desirable.

It must be stated that only skills which were mentioned by at least 2 graduates as their expected skill outcome have been demonstrated in figure 1. Other skill expectations, each of which had been mentioned by only one respondent, and none of which were stated as achieved, were: strategic planning skills, crisis management skills, rehabilitation services, policy making skills, evaluation skills, consultation skills and finally official correspondence skills.

Figure 1: Skills improvement Expectations and Achievements as perceived by graduates of Ms degree in rehabilitation management



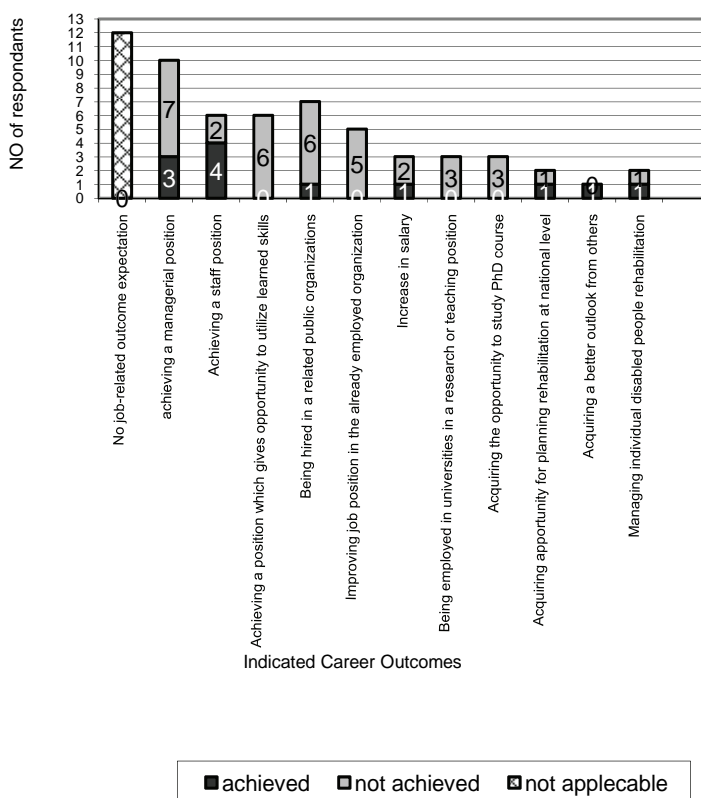
Expected and Achieved Career Outcomes (answers to the open-ended questions)

As it can be seen in Figure 2, twelve respondents replied that they had no career expectations, so comparison of expectations and outcomes was not possible.

The remaining 40 graduates each mentioned one or more career expectations, which were categorized into 11 main items. Among all graduates who had responded to this question, only 10 stated that they

had achieved one of their expectations. Only 1 graduate mentioned achievement of 2 expectations. So, an overall 12 expected career outcomes were achieved. It is noteworthy to state that all 12 expectations were achieved by alumni who were either employed in the State Welfare Organization or the University of Social Welfare and Rehabilitation Sciences, or were in a managerial position in a private center, before attending the course

Figure 2: Career outcome expectations and achievements as perceived by graduates



Perceived effects of the course on the graduates' professional lives (answers to an open-ended question)

The graduates' opinions were asked about the effects of the course on their professional lives. As can be seen in table 3, 33 graduates (63.45%) perceived positive effects of the course on their professional lives including such effects as improvement of job performance, improvement of job position, broadening of job-related perspectives and outlooks,

and receiving different job offers. On the other hand, 17 graduates (33%) believed that the course did not affect their professional lives.

Finally, 2 graduates (11%) replied that attending the course had some negative effects on their professional lives, pointing to such issues as: a sense of being rejected at the work place, slogging for nothing, and lag from life.

Table 3: Perceived outcomes of Rehabilitation Management course on the professional lives of graduates

Overall Effect	perceived effect (Number of respondents who mentioned to it)
Positive effect 33 (63.45%)	Broadening of job-related perspectives and outlook (5) Improved insight about disabled people; achievement of a holistic view towards disabled patients; improvement of communication and provision of services for the disabled and their families (4) Improvement in quality of work (9) Improvement in ability to analyze different situations at the work place; acquiring a better understanding of the work place; acquiring a better understanding of rehabilitation in the country (2) Increased dignity and prestige at the work place (4) Positive impact on career progress and job positions (6) Being hired by the government more easily (1) Increased Salary (1) Positive effect in general (5) a sense of being rejected at the work place, slogging for nothing, lag from life (2)
Negative effects 2(4%)	
No effects 17 (33%)	
Total number of respondents 52 (100%)	

* Some graduates mentioned more than one effect.

Perceived compatibility of course 'skill outcomes' with the actual requirements of current job (answers to the close-ended questions)

In answering the close-ended question: "how compatible is your acquired skills with your current job?", as is demonstrated in Table 4, 11 graduates

among the 17 who held managerial positions after graduation (65%), 7 graduates among the 18 who held staff positions (39%), and only 3 out of 16 who held therapist positions (19%) considered high or very high compatibility with their current job requirements.

Table 4: Perceived compatibility of course ‘skill outcomes’ with job requirements after graduation

Job position Compatibility of acquired skills with current job requirements	Manager		Staff		Therapist		Unempl oyed	Total	
	No	%	No	%	No	%	No	No	%
Very high	4	41	2	11	-	-	-	9	17
high	5	24	5	28	3	19	-	12	23
Moderate	-	29	9	50	6	38	-	20	38
low	1	-	2	11	3	19	-	5	10
Very low	-	6	-	-	4	25	-	5	10
Not applicable	17	-	-	-	-	-	1	1	10
Total	7	100	18	100	16	100	1	52	100

Changes in job positions following graduation from Rehabilitation Management course

After inquiring about their job positions before and after attending the course, the graduates were classified into six groups considering the size and direction of change in their job positions. As

demonstrated in table 5, 32 (61%) graduates had no changes in job positions, 18 (35%) graduates had at least a single-level improvement and 2 (4%) had a decline in their job positions after attending the course.

Table 5: Changes occurring in graduates’ job positions at work, after attending the Rehabilitation Management course

Size and direction of change	Type of change	Number (%) of graduates
One level decline in job position	1-decline from therapist position to an unemployed position, or 2- decline from a managerial position to a staff position	2 (4%)
No change in job position	-----	32 (61%)
A Single level promotion in job position	1-advancement from an unemployed position to therapist position, or 2- improvement from a therapist position to a staff position, or 3- improvement from a staff position to a managerial position	12 (23%)
Two-level promotion in job position	Therapist position to managerial position	5 (10%)
Three-level promotion in job situation	Unemployed position to a managerial position	1 (2%)

Perceived efficiency of attending the Rehabilitation Management course (answers to close-ended question)

The graduates were asked whether what they acquired by attending the Rehabilitation Management course was worth the costs (such as costs in time, energy, stress, financial and other types of-expenses), The results are shown in Table 6. Among 52 graduates, 35 (67%) stated that the

cost-benefit ratio was good or satisfactory. Meanwhile, 12 graduates believed that the benefits were not worth the costs, noting that ten of these graduates either did not experience any changes or had declines in their job positions after graduation. It should be stated that 5 (28%) of those whose job positions had improved after graduation mentioned that the course was not worth the costs, while 23 (68%) of those who had no improvement in their job

positions answered that the course was worth its costs.

Table 6: Perceived efficiency of the Rehabilitation Management course, in terms of graduates' current job positions

Efficiency	Manager		Staff		Therapist		Unem ployed	Total	
	No	%	No	%	No	%	%	No	%
Optimal	3	33	-	-	7	24	-	10	19
Good	3	33	9	75	12	41	1	25	48
Poor	3	33	3	25	10	35	1	17	33
Total	9	100	12	100	29	100	2	52	100

Graduates' perceptions about the effect of attending the Rehabilitation Management course on their present quality of job performance (answers to close-ended questions)

Table 7 demonstrates the graduates' perception about the effect of attending the Rehabilitation Management course on their present quality of job

performance. As can be seen, 45 of the 52 graduates (87%) have considered it as 'very effective' or 'relatively effective'. For those who currently held managerial positions the figure is as high as 95%, and for those who didn't, it is 69% (all of whom have considered it as 'relatively effective').

Table 7: Graduates' perceptions about the effect of attending the course on their present quality of job performance, in terms of their current job positions

course effects on job performance	Manager		Staff		Therapist		Unem ployed	Total	
	No	%	No	%	No	%	No	No	%
Very effective	7	41	1	6	-	-	-	8	15
Relatively effective	9	54	16	88	11	69	1	37	71
Non-effective	1	6	1	6	5	31	-	7	13
Total	17	100	18	100	16	100	1	52	100

Discussion

All improvements of study programs, teaching and support services in educational institutions are based on the voice of the customer, which in this case are the students. So measuring the students' perception of the "product" or "service" they receive and their satisfaction is the cornerstone of every educational promotion plan (15).

This article aimed at providing an image of professional life consequences of graduating from rehabilitation management master's degree course in Iran, as experienced by the alumni of the first eight courses ever conducted in the country. Being aware

of the perspectives of graduating from a course and of what would be accomplished after graduation is of great value for those who have to make decisions about their path for post graduate education. It can also provide educational policy makers and managers with good clues for curriculum revision. Alumni-based outcome assessment is important for at least three reasons: 1- it provides the opportunity for "detached objectivity"; that is, their measurement of outcomes is often more reflective, given their distance from the college setting, both geographically and temporally; 2- As Robert Pace and Peter Ewel assert, there is a positive correlation

between a graduate's perception and actual levels of achievement (16, 17); and 3- alumni-based research provides an appropriate context within which to measure long-term objectives, in contrast to assessments based on current student perceptions, since alumni have had some reasonable time to live with the results of their education and reflect upon it. Especially when 'affective outcomes' are to be measured, the matured and detached perspective of alumni is preferred over the perspective of current students (16).

One important result of the present study was that 63.45% of graduates perceived positive effects of the course on their professional lives. Also, overall 67% of graduates believed that the efficiency of attending the rehabilitation management post-graduate course was optimal or good, or in other words it was worth the costs and 87% have considered it as 'very effective' or 'relatively effective' on their present quality of job performance. However, this did not mean that they were satisfied with all course outcomes. For example, 70% and 72% of graduates declared they had not reached their career expectations and expected managerial skills, respectively. It seems that in each professional education program a tension is inherent between teaching practical skills and providing theoretical background (1). Eskildsen et al, have shown that unsatisfied expectations do not make students lower their expectations. Instead, it results in a lower evaluation of image as well as low evaluations for the quality of human and non-human elements in an educational institution. This is important since image is the variable with the single largest impact on student loyalty (15). Therefore, considering the importance of fulfillment of student expectations, this result may infer a need for curriculum revision in the post-graduate rehabilitation management course in Iran. In case of such a reform, the results of the present study can be utilized as basic information and used as a scale for comparing to future studies.

The results also demonstrated a high employment rate in graduates, but as most of the have already employed, the high percentage of graduates'

employments might not be attributed to getting the degree. However, a significantly higher proportion of graduates have been employed in higher managerial positions after graduating the course. So, acquiring higher professional managerial positions after graduation was the result that could be generalized only to future graduates who have already been employed in the rehabilitation sector. It seems that having had previous experience in the professional workplace may play a rather important role in acquiring managerial positions in that field, after graduation.

Our results are concordant with the results of a study performed by Fletcher, in which some respondents found that their past experience was more important to prospective employers than their degree. Others said the degree was no help in getting a job without relevant experience. According to Fletcher KM, if some alumni find that their degree is not an asset in seeking employment, then more work needs to be done to publicize these degrees and the skills they impart to graduates, thus making this type of degree more attractive to employers and the nonprofit community in general. Thus as Fletcher suggests, universities should consider having practice or internship opportunities for students who have little or no professional or career background so that they can gain experience while enrolled in the program (1).

We should also emphasize that since passing the course seems to have been more effective and efficient for those who had already held job positions in rehabilitation or other relevant organizations or institutions; it is rational to recommend this course especially for those people interested in management who are already working in the rehabilitation sector.

Conclusion

Results of this study could be helpful by future studies for periodic evaluations and revisions of the Rehabilitation Management curriculum in Iran and also as an instrument to compare the perceived outcomes for graduates of other specialized degree programs that offer courses in management.

References

1. Fletcher KM. The Impact of Receiving a Master's Degree in Nonprofit Management on Graduates' Professional Lives. *Nonprofit and Voluntary Sector Quarterly* 2005; 34: 433.
2. McClain CJ. Planning: Using Student Outcome Measures to Plan for the Future. Descriptive Report 141, 1987; Northeast Missouri State University, Kirksville.
3. Roberson MT, Carnes LW, Vice JP. Defining and Measuring Student Competencies: A Content Validation

- Approach for Business Program Outcome Assessment. *The Delta Pi Epsilon Journal* 2002; 44(1): 13-24.
4. Association of American Colleges. Integrity in the college curriculum: A report to the academic community. Project on Redefining the Meaning and Purpose of Baccalaureate Degrees 1990; Washington, D.C.: Author.
 5. Braathen S, Robles M. The importance of assessment in business education. In: J. Rucker (Ed.), *Assessment in business education national business education yearbook 2000*; 38: 11-24. Reston, VA: National Business Education Association.
 6. Hatfield SR, Gorman KL. Assessment in education-the past, present, and future. In: J Rucker (Ed.), *Assessment in business education national business education yearbook 2000*; 38: 1-10. Reston, VA: National Business Education Association.
 7. Mundrake GA. The evolution of assessment, testing, and evaluation. In: J Rucker (Ed.), *Assessment in business education national business education yearbook 2000*; 38: 39-47. Reston, VA: National Business Education Association.
 8. National Institute of Education (U.S.) Study Group on the Conditions of Excellence in American Higher Education. *Involvement in learning: Realizing the potential of American higher education 1984*; Washington, D.C.: Department of Education.
 9. Nichols JO. *A practitioner's handbook for institutional effectiveness and student outcomes assessment implementation 1991*; New York: Agathon Press.
 10. Palomba CA, Banta TW. *Assessment essentials: Planning, implementing, and improving assessment in higher education 1999*; San Francisco: Jossey-Bass, Inc.
 11. Chandler JW. The why, what, and who of assessment: The college prospective. *Assessing the outcomes of higher education. Proceedings of the 1986 ETS Invitational Conference 1986*; pp.11-18. Princeton, NJ: Educational Testing Services.
 12. National Business Education Association. *National standards for business education: What America's students should know and be able to do in business 1995*; Reston, VA: Author.
 13. Secretary's commission on Achieving Necessary Skills. *A SCANS Report for America 2000, 1991*; The workforce skills website. Washington, D.C.: U.S. Department of Labor.
 14. Henninger E. Outcomes assessment: The role of business school and program accrediting agencies. *Journal of Education for Business 1994*; 69: 296-298.
 15. Eskildsen JK, Martensen A, Gronholdt L, Kristensen K. *Benchmarking Student Satisfaction in Higher Education Based on the ECSI Methodology 2000*; The Aarhus School of Business.
 16. Pace R. *Measuring Quality of Effort: A New Dimension for Understanding Student Learning and Development*. Laboratory for Research on Higher Education, University of California 1979.
 17. Ewell P. *Information on Student Outcomes: How to Get It and How to Use It*. National Center for Higher Education Management Systems 1983.