

Validation of the Higher Education Commission's Quality Assurance Indicators Used for Self-Assessment Mechanism at Universities in Punjab Province

Muhammad Ilyas Aslam * and Rafaqat Ali Akbar **

Abstract

The objective of the study was to determine content validation of Higher Education Commission's quality assurance indicators used for self-assessment of academic programs at universities. The recommendations of the study might be helpful for HEC, university authorities, teachers, students and policy-making agencies to assure quality of education at higher education level. Total forty faculty members from eight public sector universities from Punjab province randomly consulted as experts in this study and answered a rating scale. The rating scale derived from HEC quality assurance indicators, 'Survey of Graduating Students' input on quality of education was administered. The results determined the content validity of quality assurance indicators with reformulations. Quantitative and qualitative data was analyzed focusing percentage, mean value, and standard deviation. Demographic effects were measured by calculating ANOVA statistics. It was noted that majority of the experts restated and given comments on existing indicators. The results confirmed that the procedure of content validation of indicators is indispensable for the development of self-assessment mechanism. These indicators provide base line for taking measures regarding quality of education through self-assessment mechanism. Quality of education can be enhanced through a quality assurance system and quality assurance system stays alive based on self-assessment process.

Keywords: Quality of education, indicators (statements), validation, quality assurance, mechanism, self-assessment.

* Ph.D Scholar IER, University of the Punjab, Lahore. E-mail: mianiub@gmail.com

** Professor IER, University of the Punjab, Lahore

Introduction

Quality of education is an important area under discussion as focal point among the Higher Education Institutions all over the world. Internationally intensive efforts are being made to enhance the quality of education to face contemporary challenges. Quality of education is a fundamental aspect to get compatibility with growing global knowledge based societies (Ismail, 2010). The academic quality describes how well the learning opportunities are available to students, and helps them to achieve their award or degree (Royse, Thyer, & Padgett, 2010). The above assertion illustrates making sure suitable and effective teaching is a way towards best learning outcomes which are the fundamentals of quality of education. The quality of education provides base line for survival in global knowledge based societies.

Government of Pakistan aspires in national education policies, the quality of education should be improved (Govt of Pakistan, 2004). Therefore the quality of education will be assured through establishing National Testing Service (Govt of Pakistan, 2003). Ministry of Education indicated alarming situation concerning quality of education (Govt of Pakistan, 1998). It is evident from above statements that Government of Pakistan is determined to assure and enhance the quality of education at higher education level in Pakistan. It is being increasingly complicated for Pakistan to get benefits from the worldwide information based economy without quality of higher education, (Govt of Pakistan, 2005). It seems poor quality education system may be one of the mainly significant grounds behind the incompatibility of education and economic development.

In Pakistan the purpose of establishing Higher Education Commission (HEC) is to facilitate the indigenous universities for the development of Higher Education Institutions (HEI) as centers of excellence for learning and research (Govt of Pakistan, 2002). The HEC is making intensive efforts to assure more advance the quality of higher education and to meet global standards. The HEC has established Quality Enhancement Cells (QEC) at public and private sector universities ever since 2005 across the country. (Govt of Pakistan, 2005). The system of quality assurance and enhancement is established around the concept of self-assessment of academic programs by the academic departments at universities (Govt of Pakistan, 2005). The study is an attempt to validate the HEC quality assurance indicators used by QECs for self- assessment of academic programs at universities.

Review of Literature

Self-assessment is a procedure to establish a judgment that you formulate about your abilities (Sigmund, 2010). Self-assessment is an important process to assess the worth of the academic programs to enhance quality of education. It presents criticism intended to faculty members and university management to originate achievement strategies for improvement of quality of education (Government of Pakistan, 2006). Quality of education can be enhanced through a quality assurance system and quality assurance system stays alive based on self-assessment process (Shavelson, 2010). Higher Education Commission Pakistan has instigated self-assessment mechanism at university level across the country for quality assurance. Self-Assessment is an appraisal practice which is essential to assess the achievements of academic programs to enhance academic quality (Government of Pakistan, 2006). The structure of self-assessment is based on quality assurance indicators. An indicator is that, which points out or directs attention to something (Chan, 2002). Indicator is an instrument that indicates the condition of something (Pervan, Hill, Mathis, & Troutman, 2002). Indicators provide base line to design a measurement scale for measuring and recording variation of quality of something (Shavelson, Richard, McDonnell, & Oakes, 2008).

Validation of indicators particularly deals conducting research to authenticate indicators towards its dependability (Bockstaller, & Cramer, 2000). Validation is a process to declare or make legally valid or to establish authentication of indicators (Yarbrough, et al., 2008). Validation of indicator refers the assessment of achievement, judgment, and preparation to establish quality (Shavelson et al., 2008). Validation of quality assurance indicators, involves reviewing and evaluating the indicators to make sure they meet the requirements of department being assessed against given indicators (Linn & Gronlund, 2000).

It is evident from above statements that validated indicators are significant constraint for assessment instruments and these indicators serve the purpose for which it is used. Regarding indicators of assessment scale, it is declared valid if it measures what it claims to measure (Shavelson, et al., 2008). In other words the degree to which what is observed or measured is the same as what was purported to be observed or measured is called validity (Paulsen & Dailey, 2002). The information which is obtained by using validated indicators can be used, to judge progress toward some goal or standard (Walter, Brog, & Meredith, 2003). There are different kinds of validity, according to the nature of the research, content validity of the indicators is required.

Content validity is an extent which a test measures a proposed content region (Trochim, 2007). Validity of contents is based upon careful examination of course, textbooks, syllabi, objectives and subject matter are known as content validity (Leng, 2002). If test items represent the content that the test designed to measure is called content validity (Walter, 2003). Content validity is normally determined thorough inspection of the item. Each item is judged on whether or not it represents the specified domain (William, Mehren, & Irvin, 2002). Content validity is determined by expert judgment. Usually experts in the area are asked to assess its content validity. These experts carefully review the process used in validation of indicators which are used for developing the measurement scales and make a judgment concerning how well items represent the intended content area (William, et al., 2002). It is evident from above discussion that validity of indicators examines the accuracy of the stated indicators. It is like a standard that provides rationale for an indicator.

Objective of the Study

The study focused the following objective:

- a. To determine content validity of quality assurance indicators used for self-assessment of academic programs at universities.

Research Methodology

The study was based on mixed method approach. Qualitative and quantitative data were collected from experts on quality assurance indicators. The survey method was adopted. A three point rating scale was practiced for data collection. By purpose the study was validation research. By method type of research was descriptive survey. By value the study was qualitative and quantitative.

Distribution of sample

As sample eight public sector universities from Punjab province were selected. Total forty university faculty members 5 (12.5%) from each university from different academic departments were consulted to get their expert opinion for the purpose of content validation of statements (Indicators). These statements have been taken from QEC "Graduating Students Survey" questionnaire for the purpose of validation. These questionnaires are used by the QECs for self-assessment of academic programs at universities in Pakistan.

Analysis and Interpretation of Data Rating Scale

Relating To HEC Self-Assessment Questionnaire “Survey of Graduating Students”

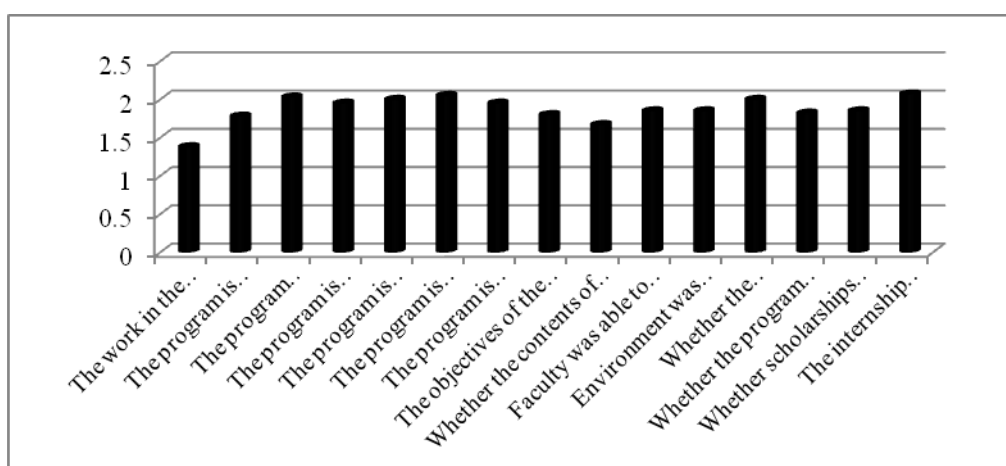
Descriptive Statistics

Statement	Excellent %	Good %	Poor %	Mean	S.D
The work in the program is too heavy and induces a lot of pressure.	0.0	37.5	62.5	1.38	.490
The program is effective in enhancing team-working abilities.	10.0	57.5	32.5	1.78	.620
The program administration is effective in supporting learning.	15.0	72.5	12.5	2.03	.530
The program is effective in developing analytic and problem solving skills.	17.5	60.0	22.5	1.95	.639
The program is effective in developing independent thinking.	20.0	60.0	20.0	2.00	.641
The program is effective in developing written communication skills.	20.0	65.0	15.0	2.05	.597
The program is effective in developing planning abilities.	5.0	85.0	10.0	1.95	.389
The objectives of the program have been fully achieved.	12.5	55.0	32.5	1.80	.648
Whether the contents of curriculum are advanced and meet program objectives.	15.0	37.5	47.5	1.67	.730
Faculty was able to meet the program objectives.	10.0	65.0	25.0	1.85	.580
Environment was conducive for learning.	7.5	70.0	22.5	1.85	.533
Whether the infrastructure of the department was good.	20.0	60.0	20.0	2.00	.641
Whether the program was comprised of co-curricular and extra-curricular activities.	10.0	62.5	27.5	1.82	.594
Whether scholarships /grants were available to students in case of hardship.	25.0	65.0	10.0	1.85	.580
The ability to work in time, time management skills, independent thinking, professional development, discipline, and link between theory and practice is internship experience and effective in enhancing these abilities	12.5	82.5	5.0	2.07	.417

N=40

Qualitative description

Statements	Poor %	Mean	S.D
The work in the program is educative	62.5	1.35	.949
The program is effective in enhancing team- working abilities	32.5	.55	.904
The program administration is effective in supporting learning	12.5	.30	.723
The program is effective in developing analytic and problem solving skills	22.5	.45	.846
The program is effective in developing independent thinking	20.0	.40	.810
The program is effective in developing written communication skills	15.0	.30	.723
The program is effective in developing planning abilities	10.0	.25	.670
The objectives of the program have been fully achieved	32.5	.75	1.080
Whether the contents of curriculum are advanced and meet program objectives	47.5	.90	1.033
Faculty was able to meet the program objectives	25.0	.50	.987
Environment was conducive for learning	22.5	.40	.810
Whether the infrastructure of the department was good	20.0	.43	.874
Whether the program was comprised of co-curricular and extra-curricular activities	27.5	.58	.958
Whether scholarships /grants were available to students in case of hardship	10.0	.45	.846
The ability to work in time, time management skills, independent thinking, professional development, discipline, and link between theory and practice is internship experience and effective in enhancing these abilities	5.0	.15	.533
Comments and Suggestions	0.0	1.40	1.932



Findings

As results of data analysis regarding content validation, the statement (Indicator) wise findings of HEC questionnaire “Survey of Graduating Students” are presented in the following. The following (bold font) statements are HEC quality assurance indicators, which are being validated (Content Validation) through experts opinion.

1. The work in the program is too heavy and induces a lot of pressure.

The mainstream 62.5% university faculty members responded that the above mentioned statement is poor, with the evidence of mean score ($M=1.38$) and standard deviation ($S.D=.490$) supporting to poor statement. Such as qualitative perspective, statistics demonstrate that, 67.5% respondents felt the statement should be changed for more comprehension and clarity,

2. The program is effective in enhancing team- working abilities

The majority of 57.5% university faculty members responded that the above mentioned statement is good, with the confirmation of mean score ($M=1.78$) and standard deviation ($S.D=.620$) supporting to good statement. As qualitative perception, statistics illustrates that 27.5% declared the statement can be restated with more clarity.

3. The program administration is effective in supporting learning

A greater part of 72.5% university faculty members responded that the above mentioned statement is good, with the evidence of mean score ($M=2.03$) and standard deviation ($S.D=.530$) supporting to good statement. As qualitative point of view, statistics explains with the intention of 15.0% the statement is able to be modified.

4. The program is effective in developing analytic and problem solving skills

The mainstream 60.0% university faculty members responded that the above mentioned statement is good, with the authentication of mean score ($M=1.95$) and standard deviation ($S.D=.639$) supporting to good statement. As to qualitative perspective, statistics demonstrates that 22.5% considered changing the statement.

5. The program is effective in developing independent thinking

The majority of 60.0% university faculty members responded that the above mentioned statement is good, with the evidence of mean score ($M=2.00$) and standard deviation ($S.D=.641$) supporting to good statement. As qualitative perception, statistics shows 20.0% faculty members declared the statement is able to be modified.

6. The program is effective in developing written communication skills

The mainstream 65.0% university faculty members responded that the above mentioned statement is good, with the indication of mean score ($M=2.05$) and standard deviation ($S.D=.597$) supporting to good statement. As qualitative perspective, statistics illustrates 15.0% respondents stated the statement can be restated.

7. The program is effective in developing planning abilities

As results calculation 80.0% university faculty members' the above statement is good, with the evidence of mean score ($M=1.95$) and standard deviation ($S.D=.389$) supporting to good statement. As qualitative viewpoint, statistics shows 12.5% declared the statement is able to be modified.

8. The objectives of the program have been fully achieved

The majority of 55.0% university faculty members responded that the above mentioned statement is good, with the evidence of mean score ($M=1.80$) and standard deviation ($S.D=.648$) supporting to good statement. As qualitative statistics, 32.0% illustrated to change it.

9. Whether the contents of curriculum are advanced and meet program objectives

The commonly 47.5% university faculty members responded that the above mentioned statement is poor, with evidence of mean score ($M=1.67$) and standard deviation ($S.D=.730$) supporting to poor statement. As qualitative perspective the experts 40.0% declared it should be changed, 2.5% felt confusing statement, and 2.5% said the statement should be removed.

10. Faculty was able to meet the program objectives

The majority of 65.0% university faculty members responded that the above mentioned statement is good, with evidence of mean score ($M=1.85$) and standard deviation ($S.D=.580$) supporting to good statement. As qualitative results 20.0% faculty members recommended the statement should be changed, and 2.5% stated to add another statement.

11. Environment was conducive for learning

A greater number of 70.0% university faculty members responded that the above mentioned statement is good, with confirmation of mean score ($M=1.85$) and standard deviation ($S.D=.533$) supporting to good statement. As qualitative perspective 20.0% suggested, change the statement.

12. Whether the infrastructure of the department was good

As calculated by results the majority 60.0% university faculty members responded that the above mentioned statement is good, with the indication of mean score ($M=2.00$) and standard deviation ($S.D=.641$) supporting to good statement. As qualitative viewpoint, 17.5% were in favor of change the statement, and 2.5% said to remove statement.

13. Whether the program was comprised of co-curricular and extra-curricular activities

The majority 62.5% university faculty members responded that the above mentioned statement is good, with evidence of mean score ($M=1.82$) and standard deviation ($S.D=.594$) supporting to good statement. As qualitative perspective 25.0% felt the statement should be changed, and 2.5% said to remove the statement. University faculty members suggested word "Whether" should be deleted from the statement.

14. Whether scholarships /grants were available to students in case of hardships

The widely held 65.0% university faculty members perceived as the statement is good, with evidence of mean score ($M=1.82$) and standard deviation ($S.D=.594$) supporting to good statement. As calculated by qualitative results, 22.5% felt the statement is able to be modified.

15. The ability to work in time, time management skills, independent thinking, professional development, discipline, and link between theory and practice is internship experience and effective in enhancing these abilities

The majority 82.5% university faculty members perceived as good statement. By means of evidence the mean score ($M=2.07$) and standard deviation ($S.D=.417$) supporting to good statement. As regards 5.0% poor response percentage indicates maximum satisfaction level experts concerning content validity of above statement. Only 7.5% felt the statement can be stated one by one.

Recommendations

Following are the statement (Indicators) wise recommendations for QEC questionnaire "Survey of Graduating Students" used for self-assessment of academic programs at universities. The (bold Font) statements are HEC quality assurance indicators (statements), and under these statements the experts' opinions have been stated.

1. The work in the program is too heavy and induces a lot of pressure.

According to the expert's opinion the above statement should be stated like,

1. The tasks and activities in the program of study are educative.
2. The academic program is stimulating.
3. The academic program is educative.
4. The environment in the program is motivating.
5. The course contents of the academic program are informative.

2. The program is effective in enhancing team- working abilities

In relation to the experts' opinion, the statement can be stated like following,

1. The program promotes team work abilities.
2. The course of study is helpful to enhance team work abilities.
3. The program is effective for enhancement of collective work abilities.
4. The academic program is effective in enhancing interpersonal skills.
5. Some argued; talent to work in challenging situation, time management skills, and capacity to work in teams, are the sub headings of interpersonal skills.

3. The program administration is effective in supporting learning

In line with the experts' opinion,

1. University administration is effective to support learning.
2. Faculty members are effective for learning improvement.

4. The program is effective in developing analytic and problem solving skills

As regards experts' opinion,

1. The academic program is valuable to develop problem solving and logical skills.
2. The academic curriculum is helpful to develop analytical reasoning.
3. The academic program is effective to develop crisis resolving skills.

5. The program is effective in developing independent thinking

According to the experts' opinion,

1. The academic program is developing creative ability.

6. The program is effective in developing written communication skills

The experts have an opinion, the statement should be stated like,

1. The academic syllabus is valuable to develop written communication skills.
2. The scheme of study is effective in developing academic writing skills.
3. The curriculum is helpful to develop report writing skills.

7. The program is effective in developing planning abilities

In line with the experts' opinion,

1. The academic program is developing planning abilities.
2. The academic program helps to develop ability to plan.

8. The objectives of the program have been fully achieved

According to the experts' opinion,

1. The maximum program objectives have been achieved.
2. The word "fully" from the statement should be removed.
3. Program objectives have been tried to fulfill completely.

9. Whether the contents of curriculum are advanced and meet program objectives

In accordance with experts' opinion,

1. The course contents are advanced and meet program objectives.
2. Course contents are advanced.
3. Course contents are able to meet program objectives.
4. Some described word "whether" is not needed in the statement.

10. Faculty was able to meet the program objectives

Along with the experts' opinion,

1. The faculty members are able to meet the program objectives.
2. University faculty members are able to meet program objectives.
3. Faculty was very committed to fulfill their responsibilities.
4. Faculty was intellectually rich.
5. Faculty was very competent to their duties.

11. Environment was conducive for learning

With reference to the experts' opinion,

1. University environment is supportive for learning.
2. University environment is encouraging for learning

12. Whether the infrastructure of the department was good

1. The university / department infrastructure is good.

13. Whether the program was comprised of co-curricular and extra-curricular activities

According to the experts' opinion, word "whether" should be removed.

1. The academic program was contained extra-curricular and co-curricular activities.

14. Whether scholarships /grants were available to students in case of hardship

The experts stated the word “whether” should be deleted from the statement.

1. The scholarships were offered to students in case of need.
2. Scholarships were available to needy students.
3. Need based scholarships were available.

15. The ability to work in time, time management skills, independent thinking, professional development, discipline, and link between theory and practice is internship experience and effective in enhancing these abilities

Experts’ opinion,

1. Above statement have sub headings of interpersonal skills, which can be asked separately.

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