

Development of an Evaluation Model for BS 4 Years Program at University Level

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Abstract

The main objectives of the study were to examine the effectiveness of BS Education program & develop an evaluation model for BS 4-Year Program in the Subject of Education. The sample of the study comprised four (4) public universities of the Punjab. Fifty three (53) (male & female) teachers from the Department of Education and three hundred and twenty-nine (329) students (male & female) studying in different semesters of BS 4-Year program in Education from the sample universities were included in the sample. The Students' sample was selected by using Stratified random sampling technique. Questionnaires for teachers and students were prepared, administered and analyzed separately. The collected data were analyzed by using percentages, mean, z-test, product moment correlation and factor matrix. As far as the conclusions of the study were concerned, it was found that on maximum components of the questionnaires, teachers and students showed their satisfaction towards BS program. In addition, an evaluation model was proposed by keeping in view the basic components of evaluation.

Keyword: BS

I. Introduction

Education has an immense impact on the human society. The importance of education cannot be neglected by any nation (Gibbons, 1998, p.68). Memone (2007, p.83) indicated that education is important due to two reasons: Firstly, its help in the training of human mind; tells person how to think and how to make decisions. Secondly, person can receive essential information about the external world. Without education, man is in a dark room and with education he finds himself a bright future. Education system plays a very important role in every nation's success. It is important for nation to build a good education system for their people. (Ahmad, 2011, P. 6).

Education is a basic component of every country. Social, scientific, economical and technological improvement of a country is possible through quality of education. Taneja(2000,p.12).The characteristic of a good education is to encourage each and every student to think critically, creatively, independently, deeply and develops the ability to ask thought provoking questions. It also provides the tools, resources and conducive environment to acquire knowledge & skills (Mohanthly, 2000, pp. 60).In the view of Haider (2008, p.82), Education has a sizeable contribution in the development of spiritual, moral, mental and physical well-being of pupils.

But the fact is that its significance has not been noticed in South Asians countries. It is also observed that our students face problems while seeking admission in foreign universities. They are sometimes asked to repeat a degree again at a foreign university. So, there is a need to bring changes in the existing curricula for degree programs (Qureshi, 1997, p.70). During the recent years, rapid advancement in the field of science and technology has also demanded changes in the existing curricula for degree programs currently offered by various universities of the country. The trends in education have changed rapidly over the few years on the international scene. The government of Pakistan has shown a keen interest in making rigorous changes in degree programs to remove all discrepancies with the international standard. BS 4-years program was therefore, established in 2002 in accordance with the recommendations of the Higher education commission and the national curriculum revision committee. Bachelor degree so earned by students after sixteen years of schooling will be in line with the university accepted format of higher education and fulfills the requirements for its international recognition. So, first time in Pakistan, University of Karachi, Pakistan initiated Bachelor of studies (BS) 4-Year Program with the aims of preparing the students of this region to compete with students at international level, producing high quality professionals, scientists and improve academic standard in this region through dissemination of knowledge. This program has been playing enviably role to enable the students to get linguistic, literary, communicative, critical, cultural and humanistic skills. (Bahauddin Zakariya university, multan,2009,pp.96-98).Now, most of the universities in Pakistan are offering BS 4-Year Program in the disciplines of basic sciences, social sciences and languages.

(Bahauddin Zakariya university, Multan, 2009,pp.96-98)

Semester system has been introduced to run BS 4 Year program. It is consisted of eight semesters. In all, there are 45 courses of study spread over four years. Total credit points in BS program are $45 * 3 = 135$. There is a compulsory 3 credit hours of research project report and supervised internship program of 8 weeks. It is a multidisciplinary program that offers a unique blend of Compulsory, General, Foundation and Optional courses. This program is committed to provide quality education, develops students understanding about the social world, focuses on developing conceptual abilities, instill confidence among students in their abilities and to ensure the best possible utilization of youth's talent that is being prevalent in the out-dated B.A. 2-Year. On successful completion of Four Year BS studies, the

students can apply for any post of 17 grade, teach different subjects at secondary level with professional skill & competence. Moreover, they will be entitled to receive BS degree which is considered equivalent to masters degree, able to get various jobs in following areas: School teacher, Private tutor, Home tutor, Education consultant, Education counselor, Online tutor, Vice principal and Principal.

(Bahauddin Zakariya university, Multan,2007,pp.3-4)

BS 4-Year Program is also beneficial due to followings reasons : this degree will be at par with the Bachelor's Degree offered by prestigious universities around the world and shall meet international standards and credit transfer requirement, the students will become competitive in coping with challenges of the modern world, this program consists of modern courses, this will provide an edge to universities over other institutions in the country and comparatively with modest dues and the students will be able to have better opportunities to learn. (Bahauddin Zakariya University, 2009,p.99).

Being a teacher educator, researcher realized the importance, rationale of BS program and find that no compact and comprehensive research study has yet been done for the evaluation of BS 4-Year Program in Education, So, the researcher selected this specific topic for the present study. The study may develop awareness regarding the importance of BS 4 year program among administrators, teachers and students. The teachers with the help of administrators may able to evaluate the curriculum content, physical facilities, instruction, teaching practice and assessment component of BS Education program at university level. The study may be useful for the policy makers and administrators to bring improvement in BS 4 year program in the subject of Education.

II.Objectives of the Study

The objectives of the study were as under:

1. To examine the effectiveness of BS 4-Year Program perceived by students in the Subject of Education with reference to its components: Context, Curriculum Content, Physical facilities, Instruction, Assessment and Teaching practice.
2. To determine the significance of mean difference between performances of different University students.
3. To find out the students perception about the most accepted component of BS program.
4. To assess the response of male and female teachers to the scale statements.
5. To determine the coefficient of correlation among university teachers regarding different components of the BS program.
6. To develop an Evaluation model for BS 4-Year Program in the Subject of Education

III. Methodology

The nature of the present study is descriptive; a five point Likert type scale, comprising 40 statements, was constructed by the researcher to collect information

from the students about the said components of BS Education program. The researcher also prepared a 5 point Likert scale for the teachers. It was a lengthy scale, consisted on 105 statements covered said components of BS Education program i.e. Context, Curriculum content, Physical facilities, Instruction, Teaching practice and assessment separately.

Data related to student's sample were analyzed through Statement analysis, Comparison of mean, comparison of components on mean basis and pair wise mean comparison. For these purposes, percentages, mean score, standard deviation and z test were used. Data analysis for teacher's sample was carried out, keeping in view the Component-wise analysis, comparison of mean & Factor-matrix. For these purposes, percentages, z – test, factor analysis and product moment correlation were used.

IV. Findings

It was found that on maximum components of the rating scales, teachers and students showed their satisfaction.

V (1). Results of the study from students sample

V (1)(i) Analysis of Rating Scale

For each statement, percentages under all the five levels (SA= strongly agree, A= Agree, U= Undecided, D= disagree, SD = Strongly Disagree) with mean scores were calculated and recorded. The detail is given in table 1.1:

Table 1.1 Analysis of Rating Sale (percentage-wise)

Sr. #	Statements	SA %	A %	U %	D %	SD %	X ²
I.	By joining this program, students' vocational future is secured	15	23	03	23	36	259
II.	This program develops communication skills of the students	20	14	05	29	32	260
III.	Students face no difficulty in learning the curriculum content	26	35	08	15	16	339
IV.	The curriculum content promotes good study habits among students	32	18	08	27	15	302
V.	The curriculum content provides variety of learning experiences to the students	24	20	09	35	12	309
VI.	The curriculum content is theoretical in nature	38	15	11	21	15	325
VII.	Course outlines provide lists of useful recommended books	50	17	00	26	07	377
III.	The curriculum content is according to the mental level of the students	47	11	05	21	16	351
IX.	The curriculum content develops practical skills among students	08	15	10	56	11	253
X.	The curriculum content inspires students to be creative	02	04	03	46	46	171
XI.	There is an adequate number of classrooms/lecture theaters to teach different courses	41	26	02	23	08	369
XII.	Multimedia facility is available in the classrooms	23	19	03	20	35	275

III.	Writing boards are set in all classrooms	61	39	00	00	00	461
IV.	Audio / visual aids are adequate to run classroom activities	15	26	09	32	18	287
V.	Internet facility is available in the library	09	26	04	38	23	260
VI.	The library collection includes all the recommended books mentioned in the syllabus	61	30	03	02	04	443
VII.	The library is accessible to all students	65	29	00	02	04	450
III.	Teachers use a variety of instructional methods in their classes	01	03	05	53	38	176
IX.	Teachers use innovative strategies to promote critical thinking among students	05	06	02	42	45	185
X.	Teachers develop positive values among students	47	41	04	05	04	422
XI.	Teachers follow the content sequence	38	44	01	08	09	394
XII.	Use of educational technology makes teacher's lectures effective	43	46	02	04	05	415
III.	Teachers enter their classes well-prepared	10	06	04	39	41	205
IV.	Teachers revise and repeat instructional content, whenever it is needed	45	36	01	08	10	398
V.	Students are encouraged to participate in class discussion	50	35	03	08	04	419
VI.	Students are motivated to ask questions	11	12	04	29	44	217
VII.	Students are satisfied with English as medium of instruction	06	05	00	50	39	187
III.	Sessional assignments contribute to students' better understanding of the subject	52	32	02	05	09	416
IX.	Teachers try to guide slow-learners	22	05	02	41	30	245
X.	Teachers finish their lectures within scheduled time period	37	31	04	05	23	353
XI.	Systematic monitoring of students, during teaching practice, results in useful educational activity	30	61	00	05	04	409
XII.	Model lessons are delivered by specialist-teachers before beginning of the teaching practice	64	27	02	05	02	448
III.	Attendance of student-teachers is compulsory during teaching practice	67	26	00	05	02	452
IV.	Supervisor's load is too heavy to guide students properly	61	18	06	09	06	419
V.	There are sufficient physical facilities in the department for effective teaching practice	20	13	04	26	37	253
VI.	During teaching practice, prospective teachers learn class-management skills	34	27	00	15	24	333
VII.	A structured evaluation sheet is used by the supervisors to evaluate the lessons	38	27	04	08	23	348
III.	During teaching practice, student-teachers are encouraged to follow the procedure, laid down in the lesson-plan	61	34	00	02	03	448
IX.	Teachers force student to study class-notes for preparation of examination	57	36	00	04	03	443
X.	Students are satisfied with the time allowed to complete the examination papers	23	14	07	29	27	276

The analysis of responses of all students on the statements showed that on 25 (62.5%) statements, students were satisfied with the effectiveness of BS program while on 15 (37.5%) statements, disagreement was shown.

V (1) (ii). Comparison of Mean

To observe the agreement level of students on different statements, the value of Arithmetic Mean for each statement was also calculated. All values were tabulated in descending order. The detail is given in table 1.2

Table No. 1.2: Mean Values on Statements

Statement No.	Mean	Statement No.	Mean	Statement No.	Mean
13	4.61	24	3.98	14	2.87
33	4.52	21	3.94	40	2.76
17	4.5	7	3.77	12	2.75
32	4.48	11	3.69	2	2.6
38	4.48	30	3.53	15	2.6
16	4.43	8	3.51	1	2.59
39	4.43	37	3.48	9	2.53
20	4.22	3	3.39	35	2.53
25	4.19	36	3.33	29	2.45
34	4.19	6	3.25	26	2.17
28	4.16	5	3.09	23	2.05
22	4.15	4	3.02	27	1.87
31	4.09			19	1.85
				18	1.76
				10	1.71

Table 1.2 shows that on 13 (32.5%) statements students' responses about the effectiveness of BS program were very high; On 12 (30%) statements the level of agreement was moderate while on the remaining 15 (37.5%) statements, disagreement on the part of students in the sample, was observed.

V (1) (iii). Pair-wise mean comparison

Samples were derived from four universities of the Punjab. On the whole, there were 329 (76, 69, 108, 76) students in the study sample. Arithmetic mean, SD and CR(z) values for each sub-sample were computed. Statistics were recorded keeping in view the pairs of universities as shown in table 1.3.

Table 1.3 pair-wise mean comparison

Sr. No.	Universities	N	\bar{X}	S.D	CR(z)	Significance of Mean-Difference
1	Bahauddin Zakariya University, Multan	76	145.99	8.03	2.36	Significant

	Islamia University, Bahawalpur	69	149.51	9.69		
2	Bahauddin Zakariya University, Multan	76	145.99	8.03	4.70	Significant
	University of Sargodha, Sargodha	108	150.69	4.11		
3	Bahauddin Zakariya University, Multan	76	145.99	8.03	1.06	Insignificant
	Govt. College University, Faisalabad	76	148.45	8.31		
4	Islamia University, Bahawalpur	69	149.51	9.69	0.89	Insignificant
	University of Sargodha, Sargodha	108	150.69	4.11		
5	Islamia University, Bahawalpur	69	149.51	9.69	0.70	Insignificant
	Govt. College University, Faisalabad	76	148.45	8.31		
6	Govt. College University, Faisalabad	76	148.45	8.31	2.17	Significant
	University of Sargodha, Sargodha	108	150.69	4.11		

Table 1.3 shows that in three pairs (pairs indicated in s#1,2,6), the calculated value of “z” was more than 1.96, which showed that the mean difference of students’ response in these pairs were significant whereas in other three pairs (pairs indicated in s#3,4,5), mean difference were found to be statistically insignificant.

V (1) (iv) Comparison of Components on mean basis

Rating scale, used for student sample, comprised 40 statements in all, which were covering said components. The mean values of student sample (329) on individual components were computed and presented in the table 1.4:

**Table 1.4 Mean-scores on Scale Components N = 329
L = 40**

Sr. No.	Components	No. of statements	Combined mean
1	Context	8	2.70
2	Curriculum Content Physical facilities	11	3.57
3	Instruction Teaching Practice	15	3.20
4	Assessment	6	3.80

According to the table 1.4, the most accepted component of the program by the students was “Product” (mean = 3.80) while other three components accepted by the students, were Input (3.57), Process (3.20) and Context (2.70). It could be inferred that the ‘Context’ of the program, was not appreciable for the students in the sample.

V 2. Result from Teacher's Sample

V 2 (i). Teachers' response on scale Components

The sample consisted of 53 teachers. The rating scale comprised 105 statements in all which were divided into six major components i.e. context, curriculum content, physical resources instruction, teaching practice and assessment. Teacher's response to the scale components is given in table 1.5:

Table 1.5: Teachers response on Scale Components

Sr. #	Components	Percentage of Teachers	
		Agreed(%)	Disagreed(%)
1.	Context	85	15
2.	Curriculum Content	89	11
	Physical facilities	77	23
	Overall	83	17
3.	Instruction	96	04
	Teaching Practice	98	02
	Overall	96	04
4.	Assessment	98	02

According to the table 1.5, 85% (45 out of 53) teachers were satisfied with the **Context** of the BS 4-Year Programme in Education which indicated that a majority of teachers considered the introduction of this programme at university level, useful for the student-teachers as well as for the community in focus. On the whole, 83% (44 out of 53) teachers accepted that **Curriculum Content & Physical Facilities** provided to run BS 4-Year Programme as useful and effective for the student teachers. Overall, 96% (51 out of 53) were in favour of the **Instruction & Teaching Practice** of this programme. Lastly, the analysis of the **Assessment** component reflected 98% acceptance level from the teachers in the sample.

V 2 (ii) Comparison of Mean- Gender wise

To determine the significance of difference between mean of scores of male and female teachers, z – test was applied. The value of “z” was calculated to be 2.98 which was greater than 1.96 (Table value at 0.05 level of significance). Difference between mean scores of two-samples was significant which indicated that the acceptance level of female teachers was relatively higher than that of male group regarding the effectiveness of BS 4-Year Programme in Education at University level.

V 2 (iii). Inter-correlation between components of the scale

In order to determine the interrelationship among different components, the coefficient of correlation (r) was computed in each case and values of (r) were recorded in tabular form as shown in table 1.6:

Table 1.6: Factor - matrix

	F1 (0) (Context)	F2 (i) (Input - Content)	F2 (ii) (Input - Resources)	F2 Input	F3 (i) (Processes Instruction)	F3 (ii) (Teaching Practice)	F3 Process	F4 Product
F1 (i) Context	1.00	0.64	0.57	0.68	0.16	0.20	0.20	0.08
F2 (i) (Input-content)	0.64	1.00	0.56	0.83	0.30	0.36	0.37	0.13
F2 (ii) (Physical facilities)	0.57	0.56	1.00	0.93	0.29	0.51	0.45	0.37
F2 (Input)	0.68	0.83	0.93	1.00	0.33	0.51	0.46	0.30
F3 (i) Process (Instruction)	0.16	0.30	0.29	0.33	1.00	0.58	0.90	0.26
F3 (ii) (Teaching Practice)	0.20	0.36	0.51	0.51	0.58	1.00	0.87	0.22
F3 Process	0.20	0.37	0.45	0.46	0.90	0.87	1.00	0.27
F4 Product	0.08	0.13	0.37	0.30	0.26	0.22	0.27	1.00

Table 1.6 shows that there was high positive correlation coefficient ($r = 0.68$) between F_1 (Context) and F_2 (Input) component. The values of “ r ” between 0.30 and 0.46 were considered to be moderate. The value of “ r ” was 0.46 between F_2 (Input) and F_3 (Process) but between F_2 (Input) and F_4 (Product) the value of “ r ” was 0.30. In other three cases, the values were quite low, 0.27 in case of F_3 and F_4 ; 0.20 in case of F_1 and F_3 and only 0.08 in case of F_1 and F_4 .

However, all positive values showed that components of the tool were inter-correlated with one another and the tool (questionnaire for teachers) was valid.

VI. Conclusions and Discussion

On the basis of the analysis of data, it was found that BS 4-Year program in education had failed to develop communication skills among the students, the curriculum content was theoretical in nature, the curriculum content was unable to develop practical skills among students, the curriculum content did not inspire students to be reflective and creative, computer labs were not well-equipped with the facilities required for the courses, A.V. aids were inadequate to run classroom activities, internet facility was not available in the library, the library was not linked with the other libraries and information resources, teachers did not use a variety of instructional methods and innovative strategies to promote critical thinking among students, written guidance regarding teaching-practice was not provided before-hand to the perspective teachers, teachers forced students to study class notes for the preparation of examinations, examinations did not fulfill the educational objectives other than the cognitive ones. In the examination papers, the proportion of objectives and essay items were inappropriate. In addition, an evaluation model was proposed by keeping in view the four components of evaluation i.e:

A. Context evaluation

May include Examining and determining:

1. Program rationale
2. Needs to be addressed
3. How far program goals are responsive to the targeted needs as perceived by teachers and students?

B. Input evaluation

May include

Assessing and describing

1. Available resources to complete the program
2. Suitability of physical facilities, viewed by teachers and students associated with the program.
3. Suitability of content analyzed through the opinions of students and teachers, involved in the program
4. Alternative plan for the elevation of input design to improve the situation regarding resources and curriculum content.

C. Process Evaluation

May include examining and evaluating:

1. How the program is being implemented with respect to instructional quality?
2. The quality and effectiveness of teaching practice organized for future teachers.
3. The internal and external threats to the utilization of teaching practice as a component of teacher education.
4. Making formative decisions to modify the process in the light of the views of teachers and students included in the study

D. Product evaluation

May include determining and assessing:

1. Examination system of BS 4-Years Education program.
2. Merits and demerits of the program.
3. Actual worth and value of the program and making summative decisions in view of opinions of the respondents.

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