Evaluation of Curriculum Development Process

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Abstract

The essence of the achievement of curriculum objectives depends on its evaluation process during development. If the process indicators involve comprehensively at grass root level the product will be valid for use. Content selection regarding objective consideration and with respect to the content organization is somewhat critical during the process of curriculum development. Since often no evaluation of the implemented curriculum is carried out; hence no feedback is received to revise the curriculum. This study addresses the curriculum development process issues. A validated questionnaire consisting of 84 statements was developed. Data was collected from 810 personals involved in curriculum development process and analyzed by Statistical Packages for Social Sciences (SPSS) using Chi Square. Result shows a significant association between existing process and desired process for curriculum development. Some new trends showed a mark difference like Memorandums of Understanding, Expressions of Interest, study tours and learner cognitive level.

1. Introduction

Process evaluation is believed as Guarantee of Quality product. Evaluation of the process of curriculum development plays a vital role in channelizing and keeping the direction of young generation on the desired way for the achievement of national objectives and keeping the system update respect to changing scenario of time. Curriculum development process also undergoes transformation due to newer developments in education and its evaluation keeps it valid, reliable and keeps it in the right direction. Recommendations through evaluation for any process have a message of eternity for it. Therefore the needs to organize the curriculum development process in such a way which should prepare young men and women for pursue of the higher education as well as to make them able to adjust with their practical life meaningfully and productively are necessary. Because the goals of education can be attained only through valid reliable curriculum and proper evaluation of the process for updating and fulfilling required social needs.

2. Literature Review

There are numerous uses of the word "curriculum". The Concise Oxford dictionary defines it as "Course of Study" and notes that it derives from the Latin word for a chariot race-course. The curriculum as a race with series of "hurdles" to be overcome might still be a view held by a number of you today.

Print, (1993, p.110) curriculum is an area of vital importance to the professional teacher. Over the past two decades the study of curriculum has become an established part of teacher education programmes. Therefore, teachers need to be knowledgeable about curriculum and understand the processes by which curricula may be developed. When teachers consider curriculum issues, for example, they tackle the substantive matter of schooling which may be expressed in terms of the fundamental questions of curriculum namely.

      (i)   What to teach?
      (ii)   How to teach?
      (iii)   When to teach?
      (iv)   What is impact of teaching?

What knowledge is of most worth to learn? What activities are most effective in enabling learners to acquire this knowledge (information, facts, skills, values, attitudes etc)? Wheat is the most appropriate way to organize these activities. How do I know if learners have acquired this knowledge?

2.1   Characteristics of a Good Curriculum:

- Following are the characteristics of good Curriculum
- Development of Social Understanding:
- Promotion of Maximum Personal Development:
- Promotion of Continuity of Experience:
- Provision for Educational Goals:
- Maintenance of Balance among All Goals:
- Utilization of Effective Learning Experiences and Needed Resources

2.3   Curriculum Development Process
2.3.1   Situation Analysis:

Nicholls and Nicholls (1974, p.65) refer to the process of situation analysis as, "A situation which is made up of a number of factors such as pupils" home and background, school, its climate, its staff, facilities and equipment. Analysis of those factors, together with a self analysis, followed by study of their implications for curriculum planning constitutes one step towards the rational approach of curriculum". Print, (1993, p.122) a situation analysis is an obvious commencement point for the construction of a curriculum it is an ideal opportunity for curriculum developers, aware of the curriculum presage factors affecting them, to bring a reasoned, rational approach to the development of curricula. Above all, it is an opportunity for curriculum developers to take account of local factors when developing curriculum to meet student needs.

Analysis of factors which constitute the situation:

a) Cultural and social changes and expectations including parental expectations, employer requirements, community assumption and value, changing relationships (e.g. between adults and children) and ideology.
b) Educational system requirements and challenges, e.g. policy statements, examinations, local authority expirations or demands or pressures, curriculum projects, education research.
c) The Changing nature of the subject matter to be taught.
d) The potential contribution of teacher-support system, e.g. teacher training college, research institutes.
e) Flow of resources into the school.
f) Pupils: aptitudes, abilities and defined education needs.
g) Teachers: value, attitudes, skills knowledge, experience, social strengths and weaknesses, roles.
h) School ethos and political structure: Common assumptions and expectations including power conformity to norms and dealing with deviance.
i) Material resources including plant, equipment, and potential for enhancing these.
j) Perceived and felt problems and shortcomings in existing curriculum.

Nicholls and Nicholls (1974, p.69) the need for conducting a situational analysis is fundamental precept of effective curriculum development. Developers commencing their task should ask important questions such as, what do we know about the context the students, teachers, school environment – of this curriculum and why is it need? This provided then with an information base to pose an even more fundamental question: what do our learners need?A recommended approach to conduct a situational analysis involves four steps i) identify problems in contents; ii) select approach factors; iii) data collection; and analysis iv) make recommendations.

3. Curriculum Evaluation

Curriculum evaluation refers to the collection of information on which judgment might be made about the worth and the effectiveness of a particular programme. It includes, of course, actually making those judgments so that decision might be made about the future of programme, whether to retain the programme as it stand, modify it or throw it out altogether. Stocked approaches curriculum evaluation through a conceptual analysis of the term "Evaluation", in his analysis, he identifies four central features of evaluation given under:

1. Evaluation is appraisal in which we make judgment.
2. Such judgments are made in the light of criteria.
3. Criteria issue from, and are appropriate in respect of particular contents.
4. Such Criteria embody human resources, and evaluation model, therefore, inform decisions.

The important methods and techniques employed in curriculum evaluation include discussion, experiments, interviews (group and personal) opinion of various agencies stakeholders, observation – procedures, questionnaires, practical performance and official record.

Guba and Stufflebeam (1970, p.109) identify four types of decision which are involved in curriculum evaluation certain features of their work are useful as an organizing framework for examining curriculum evaluation. These types include the decision about:

1. Planning intention, e.g., which objectives to select.
2. Planning procedures, e.g., which personnel, methods and material employ.
3. Implementing procedure, e.g., whether to continue, modify or abandon a procedural plan.
4. Outcomes, e.g., which intentions are realized, to extent and by whom.

Evaluation conceived in this manner is an integral part of curriculum development, beginning with the concern about objective and ending with assessment of their attainment.

4. Models of Evaluation

It should now be clear that evaluation is nothing if not a problematic business, and in summarizing the nature of difficulties it is logical to look first at ways in which evaluation might proceed. In considering how to evaluate, we can think of a range of approaches or models. There are many different evaluation models, because different specialists have undergone somewhat different experiences in learning and doing evaluation and used different values and world views in reflecting on their experiences.

Maurice Holt (1981, p.23) identifies six models of evaluation which are as follows:

1. The classical (or agricultural-botanical) research model.
2. The research and development (or industrial, factory) model.
3. The illuminative (or anthropological, responsive) model.
4. The briefing decision-makers (or political) model.
5. The teacher as researcher (or professional) model.
6. The case-study (or eclectic, portrayal) model.

David Cohen (1977, p.87) identifies three schemes of models of curriculum evaluation:
1. The Curriculum Materials Analysis Scheme (CMAS) developed by Social Science Education Consortium.
2. The Sussex Scheme for the analysis of curriculum material developed at the University of Sussex.
3. Curriculum Material Analysis Scheme (CMAS) for Science developed at the Federal Republic of Germany.

Print (1993, p.164), some of the evaluation models are often referred to in the literature of evaluation. These models will be discussed below briefly:
1. Tyler's objective-oriented model
2. Societal experimentation model
3. CIPP model and the EIPOL model
4. Countenance evaluation
5. Discrepancy evaluation model
6. Responsive evaluation
7. Transactional evaluation

8. Goal-free evaluation
9. Investigative approaches to evaluation
10. Evaluation as illumination
11. Evaluation as connoisseurship
12. The advocacy model of evaluation
13. Participating evaluation model
14. The situation-specific strategy model.

5. Objectives of the Study

The main objectives of the study were as follows.

a) To develop an effective sketch of factors those are responsible for the evaluation of curriculum development process.
b) To provide support for the development of a continuous system for process evaluation of curriculum development.
c) To point out the responsible institutions which can effectively do the job of curriculum development process in future.
d) To estimate the performance of the institutions which are involved in curriculum development process.
e) To appraise the existing curriculum development process

6. Significance of the Study

Curriculum development is a continuous process and necessary changes are part and parcel of the process, In order to make more responsive to the changing demands and to ensure the relevancy. It is beyond doubt reality that the effective curriculum development process can enhance the learning of the participants. It will be only possible if evaluation with respect to the formulation, implementation, launched in a proper way. If programmed evaluation is needed to judge and perceive in order to improve planning and implementation of current and future activities, this research will be helpful to meet most of the queries regarding curriculum development process.

7. Population and Sample of the Study

a) All (3) Members of National Curriculum Council Ministry of Education Islamaba
b) All (16) Subject specialists of Curriculum wing Ministry of Education Islamabad.
c) All (32) Subject specialists of Curriculum wing of Punjab Text Book Board
d) All (8) Subject Specialists of Curriculum wing of NWFP Text Book Board
e) All (19) Subject specialists of Bureau of Curriculum Sindh.
f) All (7) Subject specialists of Bureau of Curriculum Balochistan.
g) All (727) Members of the Curriculum review committees of 23 subjects at secondary level in the year 2006.

100% population was taken up to the serial No. a to g mentioned in the population of the study.

8. Methodology

8.1 Instrumentation

Questionnaire is more efficient as it requires less time, is less expensive, and permits collection of data from a much larger sample (Best and Khan, 1992). Van Dalen, (1973, p.324) it is quite suitable instrument for the collection of reliable and quantifiable information from all members of a sample. It is easy to fill out, keep respondent on subject, is relatively objective and fairly easy to be tabulated and analyzed. A questionnaire as Likrt rating scale consisting of 84 statements was developed on the basis of related literature, Main features of the curriculum development process in the shape of objectives, content; methodology and evaluation were kept in view while developing the Questionnaire. The questionnaire was validated through expert opinions working at excellence centers, Institute of Education and Research, Punjab University and personnel working at Federal Level involved in process of Curriculum Development.

8.2 Procedure

Rating scale was given to the selected sample. Researcher was collected data from Punjab and Islamabad in his presence and the remaining data collected through mail, rating scale was made filled so that return of rating scale was managed 100% and accurate.

8.3 Data Analysis:

Raw data was converted into meaningful data through SPSS.

The data needs to be edited, classified and tabulated so that it may become worthwhile for the required purposes. In order to draw conclusions, the collected data was analyzed and presented in the form of tables. Collected data was analyzed by using Chi square. The formula for Chi square is:

$$X^2 = \frac{\sum (fo - fe)^2}{fe}$$

Where

fo	=	frequency of observed or experimentally determined facts.
fe	=	expected frequency of occurrence on hypothesis (Garrett, 1997, p.265)

9. Findings

The Analysis of the data revealed following findings:

1. National needs are perceived before putting the objectives of the subject in the final draft.
2. Social awareness level of stake holders is not perceived before choosing the objectives of the subject.
3. National institutions of the country are not made aware of the objectives of curriculum in different areas of the subject.
4. Provincial institutions of the country are not made aware of the objectives of curriculum in different areas of the subject.
5. Objectives are changed constantly in the light of need assessment.
6. Objectives are justified through discussion and consensus of the experts of the subject concerned.
7. Teaching strategies are not developed for the achievement of the objectives of curriculum.
8. Objectives are derived from cultural values.
9. Objectives are developed keeping in view the historical foundations of curriculum.
10. Objectives are not derived on the basis of religious values.
11. Objectives are not finalized after consultation with the experts of the subject concerned.
12. Objectives are not adapted through need assessment regarding the subject.
13. Objectives are developed on philosophical grounds.
14. Objectives are set taking into consideration the age and IQ level of the learners.
15. Individual and society relationship is not incorporated in the objectives statements.
16. Specific objectives for the subject justify the national education policy.
17. Content and graphic relationship is not studied by the psychologists before their finalization for the curriculum.
18. Difficulty level of content is seen before its finalization.
19. Pilot studies are conducted before finalization of content material.
20. Quality of content material is not ensured before finalizing the curriculum draft.
21. The selected concepts in content material are not presented from simple to complex.
22. The selected content material is suitable for achieving the national values and norms.
23. The subject teachers are invited to finalize the curriculum draft.
24. The organization of content is not seen by the group of educationists before its final approval.
25. Time and content division is pre determine for finalizing the material.
26. Relationship between learner's interest and the selected material is not pre-assessed for the implementation of the curriculum.
27. Inclusion of career related material is not pre-assessed for its recommendations from content.
28. Feedback is taken from previous stake holders before finalizing the material.
29. Quality of content is approved by board of curriculum development experts after finalizing and before printing process.
30. Content reduction strategies are not suggested according to the special needs of the learner.
31. Adaptation strategies for special learners needs are not worked out.
32. The concerned institutes like curriculum wing, textbook boards' etc conduct research to know the effectiveness of the existing curriculum.
33. Historians do not contribute in a proper way through recommendations.
34. Geographers do not contribute in a proper way through recommendations before initiating the process of curriculum development.
35. Religious scholars contribute to create harmony through recommendations.

36. Scientists contribute in a proper way for the learners needs to include specific material for the science subjects.
37. Content material justifies the curriculum issue mentioned in national education policy.
38. Suggestions from subject specialists are not invited for the improvement in the content.
39. Vocational institutions are not given proper weightage in curriculum development process.
40. Learning activities recommended are validated by experts before launching in the field.
41. The suggested learning activities do not enhance student's learning regarding objectives.
42. The planned learning activities do not generate creativity in the student.
43. Models suggested for the learners are helpful in understanding content.
44. Harmony among learning activities, content and objectives is studied by educationists before finalizing for learners.
45. On job teacher training is recommended to teach the new concepts.
46. Student's cognitive needs are not pre-determined for the recommendations of learning activities.
47. It is ensured that the suggested learning activities are culture related.
48. The recommended activities are not norms related.
49. Inter relationship between learning activities and instructional objectives are not studied by the educationists before launching for learners.
50. Suitability among learning activities, age level and content is studied by the subject specialists.
51. Refresher courses are organized for in service training of the teachers about new techniques and methods.
52. Effects on learner's behavior are not studied through research before final approval of the content material.
53. During the formulation of the curriculum the opinion of the teacher is not given due weightage.
54. Meetings of subject specialists are conducted to perceive the needed knowledge.
55. Teachers' opinions are not taken in to consideration for curriculum development for the subject concern.
56. Experts from different walks of life do not share their ideas in curriculum development.
57. Proper coordination is made among the concerned institutes during the revision of curriculum.
58. Latest researches in curriculum development are not used to perceive the needs for updating the curriculum.
59. Need assessment workshops are conducted before initiating the process of curriculum development.
60. Study tours of different countries are not arranged for the subject specialists to study the process of curriculum development in those countries.
61. Curriculum development groups have not been framed to update the curriculum development process for different subjects.
62. Suggestions from the concerned organizations such as Text Book Boards are invited through office orders for curriculum development.
63. Memorandums of understanding are not signed for mutual cooperation with leading countries for guidance.
64. Regional seminars are held for need assessment of Secondary School level students.
65. Public opinions are not invited through media for the improvement of curriculum.
66. Experts are appointed to review the needs of secondary school students in the subject area.
67. Global changes are taken into consideration for updating the curriculum.
68. World Bank reports regarding curriculum review in the context of Pakistan are not studied to explore the need assessment in education sector.
69. UNESCO reports in the context of Pakistan are not taken into consideration for the improvement of the curriculum.
70. It is ensured that the experts who are involved in the curriculum development are professional competent.
71. The members of curriculum review committees are not selected on merit.
72. The subject experts are given due representation in curriculum committees.
73. Potential client's needs are given due weightage in curriculum development through study and research.
74. The committee of experts about the draft of the curriculum for different subjects given due weightage by the curriculum review committee.
75. An opinion survey from stake holders is not conducted before developing the curriculum.
76. Curriculum development is based on need assessment and evaluation.
77. The suggested curriculum is tested through pilot testing before implementing in the schools.
78. The participation of the concerned teacher of the subject is not compulsory in the curriculum review committee.
79. Teachers are given training before implementing the revised curriculum.

80. Teachers' guides availability is not ensured for teacher's guidance.
81. Curriculum development process is not initiated on the basis of research and analysis of the previous curriculum.
82. Implementation checks through evaluation of students performance has not designed before launching in the field.
83. Hypothetical framework of the curriculum improvement is not studied by the group of experts.
84. Special teacher services for the students with special needs are not worked out before launching.

10. Conclusions and Discussions

Analysis of the data and findings of the study led the following conclusions:

The study was focused to evaluate the curriculum development process at secondary level. Some indicators have shown results that these are not practical in the country during the process of curriculum development as shown in item numbers 34, 35, 60, 63 of the questionnaire which focus that Religious scholars do not contribute to create harmony through recommendations, Geographers do not contribute in a proper way through recommendations before initiating the process of curriculum development, Memorandums of understanding are not signed for mutual cooperation with leading countries for guidance, Study tours of different countries are not arranged for the subject specialists to study the process of curriculum development of other countries respectively. The same results have been concluded from the study by Shahid (2005) on evaluation of process for curriculum development. The results of adaptation strategies for special learners needs are not worked out, Inclusion of career related material is not pre-assessed, match with the results drawn by Hamid (2002) inclusive curriculum for secondary students. Furthermore the results of this study were same as these studies, Gatefield R.A (1990) in which it was recommended that activities should be norm related, Gald Berg R.L (1976) has suggested that need assessment workshops should be arranged, Global changes should be taken into consideration for updating the curriculum, UNESCO reports in the context of Pakistan should be taken into consideration for the improvement of the curriculum, Farooq RA (1985) has purposed potential client's needs should be given due weightage in curriculum development through study and research, public opinions should be invited through media for the improvement of curriculum, the suggested curriculum should be tested through pilot testing before implementing in the schools.

11. Recommendations

On the basis of findings following recommendations are made.

1. Social awareness level of stake holders should be perceived before choosing the objectives of the subject.
2. National institutions of the country should be made aware of the objectives of curriculum in different areas of the subject.
3. Teaching strategies should be developed for the achievement of the objectives of curriculum.
4. Objectives should be derived on the basis of religious values.
5. Objectives should be finalized after consultation with the experts of the subject concerned.
6. Objectives should be adapted through need assessment regarding the subject.
7. Individual and society relationship should be incorporated in the objectives statements.
8. Content and graphic relationship should be studied by the psychologists before their finalization for the curriculum.
9. Quality of content material should be ensured before finalizing the curriculum draft.
10. The selected concepts in content material should be presented from simple to complex.
11. The organization of content should be seen by the group of educationists before its final approval.
12. Relationship between learner's interest and the selected material should be pre-assessed for the implementation of the curriculum.
13. Inclusion of career related material should be pre-assessed for its recommendations from content.
14. Content reduction strategies should be suggested according to the special needs of the learner.
15. Adaptation strategies for special learners needs should be worked out.
16. Historians should contribute in a proper way through recommendations.
17. Geographers should contribute in a proper way through recommendations before initiating the process of curriculum development.
18. Suggestions from subject specialists should be invited for the improvement in the content.
19. Vocational institutions should be given proper weightage in curriculum development process.
20. The suggested learning activities should enhance student's learning regarding objectives.

21. The planned learning activities should be generated creativity in the student.
22. Student's cognitive needs should be pre-determined for the recommendations of learning activities.
23. The recommended activities should be norms related.
24. Inter relationship between learning activities and instructional objectives should be studied by the educationists before launching for learners.
25. Effects on learner's behavior should be studied through research before final approval of the content material.
26. During the formulation of the curriculum the opinion of the teacher should be given due weightage.
27. Teachers' opinions should be taken in to consideration for curriculum development for the concerned subject.
28. Experts from different walks of life should share their ideas in curriculum development.
29. Latest researches in curriculum development should be used to perceive the needs for updating the curriculum.
30. Study tours of different countries should be arranged for the subject specialists to study the process of curriculum development in those countries.
31. Curriculum development groups should be framed to update the curriculum development process for different subjects.
32. Memorandums of understanding should be signed for mutual cooperation with leading countries for guidance.
33. Public opinions should be invited through media for the improvement of curriculum.
34. World Bank reports regarding curriculum review in the context of Pakistan should be studied to explore the need assessment in education sector.
35. UNESCO reports in the context of Pakistan should be taken into consideration for the improvement of the curriculum.
36. The members of curriculum review committee should be selected on merit.
37. An opinion survey from stake holders should be conducted before developing the curriculum.
38. The participation of the concerned teacher of the subject should be compulsory in the curriculum review committee.
39. Teachers guides availability should be ensured for teacher's guidance.
40. Curriculum development process should be initiated on the basis of research and analysis of the previous curriculum.
41. Implementation checks through evaluation of students performance should be designed before launching in the field.
42. Hypothesis framework of the curriculum improvement should be studied by the group of experts.
43. Special teacher services for the students with special needs should be worked out before launching the curriculum.

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