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Comparative Study of Cost Effectiveness of Formal and Non-Formal System of Primary Teacher Certificate Programme in Khyber Pakhtunkhwa (Pakistan)

> Sajjad Hayat Akhtar, Ph.D. Muhammad Naseer Ud Din, Ph.D. Parveen Munshi, Ph.D.

Abstract

This research study is a descriptive analysis of the cost effectiveness of formal and non-formal system of Primary Teacher Certificate (PTC) programme in Khyber Pakhtunkhwa.

In this research the Allama Iqbal Open University PTC trainees and conventional PTC trainees were considered as a population of the study, their time duration of the course, courses admission system, cost effectiveness, teacher training, job opportunities, examination system, and follow up study were investigated.

Specific indicators were used to determine the extent to which these components contributed to the efficient running of teacher education programme in Khyber Pakhtunkhwa.

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As for the objectives of the study were concerned, the following were focused upon: to compare the inputs for producing PTC teachers by formal and non-formal system, to compare the characteristics of PTC trained teachers by formal and non-formal system to be taken in equal numbers, to identify the needs of non-formal education in the province Khyber Pakhtunkhwa, and to determine the cost effectiveness of non-formal PTC teachers.

Data was collected through survey and questionnaires.

The following results were made by the researcher in the light of analysis of data. Majority of the PTC pass-outs were confronted with the problems, like inadequacy of trained teachers and lack of computers and Internet facilities. There is a wide spectrum of issues relating to the lack of well-integrated media with content difficulties and learning from media and the lack of provision of guidance and counselling.

This study is significant as it deals with training of PTC teachers by formal and non-formal system. On the basis of the previous research studies and insight of general literature, the following hypothesis was drawn to be tested by the present study: The cost-effectiveness of open education is not greater than the cost of regular system.

Keywords: Duration of courses; job opportunities; cost-effectiveness; examination system; admission system; open system and conventional system evaluation.

Introduction

Education is a social process by which we lead individuals and groups from darkness to light or from ignorance to knowledge. It is a process in which we try to develop the different capacities and potentialities of individuals in all aspects of life. It is a wholesome development of the whole child.

In Pakistan, the formal system cannot cope with the demand of education for all. In order to over-come this problem, Allama Iqbal Open University was established at Islamabad in June 1974. It provides education and training to the masses at large through its distance education approach.

Allama Iqbal Open University is one of the unique institutions because of its philosophy, system approach, functions and overall structure. The university provides multi-level and multidisciplinary education from the gross roots to the higher level programmes for the

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distance learners, out of which one is the Primary Teacher Certificate (PTC) course which was introduced in October 1979. It comprises three parts, which are (i) principle of teaching (ii) overall content and methodology of the primary school curriculum and (iii) a practical component of workshop plus supervised teaching practice.

Allama Iqbal Open University (AIOU) has started teacher-training programme at the PTC level, because the elementary colleges could not cope with the needs and demands of the people. The elementary colleges cannot meet the ongoing quantitative requirements of the primary school.

Allama Iqbal Open University's contribution is very significant in imparting education and training to the masses. It has successfully completed literacy programmes. It offers many programmes in general education and also in vocational education. The teachers of primary and secondary schools are being trained through the PTC, PTOC, B.Ed., M.Ed., M.A., EPM, M.A. Education, M.A. Special Education. Courses in higher education, such as M.Phil. and Ph.D. in various subjects, are also offered. The efforts of AIOU are acknowledged by UNESCO. UNESCO had awarded it with the "Noma" award. UNESCO

Importance of Teachers

Teachers occupy the most crucial position in the entire spectrum of educational activities. The making available a good number of educated and professionally trained teachers, therefore, poses the greatest challenges to policy makers and planners of education in Pakistan. Obviously Pakistan is constrained to find out alternative methods of expanding educational facilities at all levels. The best and cheap alternative is distance education, which is being used in most parts of the world for development and prosperity of the people. Efforts are being made to make distance education more and more effective, and comprehensive.

Literature

The teacher training institutions both in formal and non-formal systems are preparing teachers for primary schools but the quality of the teachers is questioned these days. Both the systems prepare teachers by using different methods and techniques. The cost incurred on prospective teachers also differs.

This study was designed to investigate the different aspects of training, teaching techniques, instructional technology, educational facilities and costs borne by prospective teachers. The findings of the study will indicate some weaknesses which can be removed by adopting suitable measures.

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Education is not only necessary from the point of view of enhancing literacy but it also contributes to socio-economic and political development of the country. The existing system of education in the developing countries obviously cannot cope with the demands of education for all. So, non-formal education was adopted to meet the needs of the individuals and groups.

"Need and significance of non-formal education can not be over emphasized for developing countries like Pakistan facing huge financial constraints and committed to development in the shortest possible time. Keeping in view the growing need and significance of non-formal education approach for Pakistan, several agencies, institutions has under taken numerous non-formal education programmes in the country". (Ghafoor 1990, p.17)

"In our discussion about cost-effectiveness, we take the definition the "Cost-Effectiveness (CE) analysis. It refers to the evaluation of alternatives according to both their costs and their effects with regard to producing some outcome of set of outcomes". The alternative here is between conventional universities and distance education institutions. Accepting the effectiveness of education of both systems, we look into the costs and the efficiency. As Chang and his colleagues stated, "More specially, efficiency in our case can be defined as effective instruction at the lowest possible costs – cost-effective instruction in a literal sense". (ADB 1986, p.519)

It is a known fact that entire development depends on the quality of education, especially the scientific and technological education; un-luckily formal system of education is becoming deficient every where to cope with the needs of people. In our country the government is unable to provide educational facilities to each individual at all levels. The best and cheap alternative is distance education, which is being used in most parts of the world for development and prosperity of the people. Efforts are being made to make distance education more and more comprehensive and effective. The AIOU was established in June 1974, following the passing of the People's Open University Act.

"Open University is being used in several countries to provide education and training to people who can not leave their homes and jobs for full time studies. A people's open university will, therefore, be established to provide part time educational facilities through correspondence courses, tutorials, seminars, workshop, laboratories, television, radio broadcasts and other mass communication media". (Education Policy 1972, p.22)

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Methodology

The survey method was used during the research. Research was based on descriptive study because it describes the opinion of the pass-outs of both the systems. PTC trained students of elementary colleges of Khyber Pakhtunkhwa and Allam Iqbal Open University were taken as population for the study. Total PTC graduates from the formal system were 490 and total PTC graduates from the non-formal system were 501. 150 PTC graduate from the formal system and 150 PTC graduates from the Allam Iqbal Open University were taken as a sample. The tools of collecting data were questionnaires.

The researcher administered two self assessments on sampled PTC graduate from the formal system and PTC graduate from the non-formal system. Five points Likert scale was used. For demographic profile, percentage was used to compare the frequencies of the respondents. Mean score was applied to measure the cost-effectiveness, job opportunities and examination of both programmes.

The researchers examined the official records at the Allam Iqbal Open University, Islamabad, DEO Primary Office Mardan, Government Elementary College for boys Peshawar, Government Elementary Colleges for boys, Ambar (Swabi) and Government Elementary colleges for women, Dargi (Malakand Agency).

Analysis

Table No: 1
Analysis of the general opinion of regular PTC pass-outs regarding the cost effectiveness of the regular system

| S.No | Statements | | A | UNC | DA | SDA | Mean |
|------|--|----|----|-----|----|-----|-------|
| | | | | | | | Score |
| 14 | Regular PTC is cheaper than PTC of AIOU. | 46 | 41 | 2 | 10 | 51 | 3.14 |
| 15 | Admission in elementary college is easier | 67 | 12 | 17 | 28 | 16 | 3.50 |
| | than PTC of AIOU. | | | | | | |
| 16 | Formal system of education provides a better | 41 | 61 | 9 | 21 | 18 | 3.57 |
| | teacher training than of AIOU. | | | | | | |
| 17 | Conventional system of PTC is more | 59 | 34 | 25 | 22 | 10 | 3.73 |
| | effective than PTC of AIOU. | | | | | | |
| 18 | The courses offered by conventional system | 37 | 58 | 28 | 24 | 3 | 3.68 |
| | are complete in all respects. | | | | | | |
| 19 | Time duration for the courses is sufficient. | 25 | 39 | 6 | 61 | 19 | 2.93 |
| 20 | The courses offered by regular system are | 60 | 19 | 19 | 37 | 15 | 3.68 |
| | more difficult than the courses offered by | | | | | | |
| | AIOU. | | | | | | |

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| 21 | The system for ht final examination is satisfactory. | 44 | 64 | 14 | 22 | 60 | 3.78 |
|----|--|----|----|----|----|----|------|
| 22 | The regular PTC teachers are better than the teachers provided by AIOU. | 42 | 23 | 27 | 55 | 3 | 3.30 |
| 23 | The matter offered by regular system of PTC is richer than the mater offered by AIOU. | 33 | 48 | 23 | 34 | 12 | 3.37 |
| 24 | New courses should be offered in regular PTC. | 55 | 21 | 22 | 42 | 10 | 3.46 |
| 25 | The output of training is up to the level. | 31 | 38 | 46 | 26 | 9 | 3.37 |
| 26 | The follow up programme is essential for its PTC teacher. | 62 | 45 | 17 | 22 | 4 | 3.92 |
| 27 | The regular PTC courses lack deficiency. | 21 | 77 | 26 | 13 | 13 | 3.53 |
| 28 | Regular PTC examination is more difficult than the PTC of AIOU examination. | 61 | 27 | 20 | 10 | 32 | 3.68 |
| 29 | Regular PTC examination may result in good score but there is no real increase in the knowledge. | 37 | 31 | 21 | 44 | 17 | 2.78 |

Table No: 2

Comments of the regular PTC Trainees

| S.No | Comments | Frequency | % |
|------|---|-----------|-------|
| 1 | Courses are to be well explained. | 82 | 54.66 |
| 2 | Instructor use guide to teach their students. | 5 | 3.33 |
| 3 | Conventional system is very costly. | 4 | 2.66 |
| 4 | PTC provides job opportunities. | 3 | 2 |
| 5 | The courses are not systematic. | 1 | 0.66 |

from the Table 82 respondents from the Table above said that courses should be explained well. 5 said that instructors used guides to teach their students.

Table No: 3

Analysis of the general opinion of AIOU PTC pass-outs regarding the cost effectiveness of the open system

| S.No Statements | SA | A | UNC | DA | SDA | Mean |
|-----------------|----|---|-----|----|-----|------|
|-----------------|----|---|-----|----|-----|------|

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| | | | | | | | Score |
|----|---|----|----|----|----|----|-------|
| 30 | PTC of AIOU is cheaper than of regular PTC. | 46 | 41 | 2 | 10 | 51 | 3.14 |
| 31 | Courses PTC of AIOU are difficult than regular PTC. | 67 | 12 | 17 | 38 | 16 | 3.50 |
| 32 | Admission in PTC of AIOU is easier than regular PTC. | 71 | 58 | 15 | 5 | 1 | 4.28 |
| 33 | AIOU provides better teacher training than a formal system. | 73 | 29 | 28 | 17 | 3 | 4.01 |
| 34 | AIOU provides better teacher training than a formal system. | 80 | 22 | 16 | 23 | 9 | 3.94 |
| 35 | PTC programme of AIOU is effective than conventional PTC. | 60 | 40 | 25 | 25 | 0 | 3.73 |
| 36 | The courses offered by AIOU met needs of the trainees conventional PTC. | 82 | 31 | 31 | 3 | 3 | 4.24 |
| 37 | AIOU PTC courses are free of deficiencies. | 20 | 41 | 43 | 4 | 44 | 2.94 |
| 38 | The time duration for the courses is sufficient. | 29 | 84 | 15 | 14 | 8 | 3.74 |
| 39 | PTC teachers of AIOU are better teachers than teachers of conventional system. | 60 | 28 | 43 | 8 | 1 | 3.92 |
| 40 | The matter offered by AIOU in PTC courses is richer than conventional system. | 57 | 62 | 28 | 3 | 0 | 4.15 |
| 41 | New areas should be added to non-formal education. | 66 | 47 | 31 | 6 | 0 | 4.15 |
| 42 | Output of AIOU is up to the level. | 40 | 54 | 26 | 7 | 23 | 3.54 |
| 43 | The follow up programme is essential for its PTC teachers. | 70 | 49 | 12 | 6 | 13 | 4.04 |
| 44 | Distance education examinations are more difficult than the public examination. | 65 | 37 | 17 | 29 | 2 | 3.89 |
| 45 | Distance education examination may result in good score but there is no real increase in the knowledge of the students. | 18 | 41 | 34 | 22 | 35 | 2.9 |

Table No: 4

Comments of the regular PTC Trainees

| S.No | | Com | ments | | | Frequency | % |
|------|---------|----------------|-------|---------|------|-----------|-------|
| 1 | AIOU | programme | are | cheaper | than | 68 | 45.33 |
| | convent | ional programn | ies. | | | | |

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| 2 | The AIOU pass out have less job opportunities. | 68 | 45.33 |
|---|--|----|-------|
| 3 | Time duration for ht course is long. | 67 | 44.66 |
| 4 | Study centres should be easily accessible. | 20 | 13.33 |
| 5 | Courses of AIOU are very difficult. | 12 | 8 |

68 respondents said that Allama Iqbal Open University programmes are cheaper than conventional programmes. 68 respondents said that the Allama Iqbal Open University pass-outs have less job opportunities. 67 respondents said that the time duration for the course is long.

Table No: 5

Suggestions of the regular PTC Trainees

| S.No | Suggestions | Frequency | % Age |
|------|---|-----------|-------|
| 1 | Curriculum should be changed | 42 | 28 |
| 2 | Time Duration should be increased | 31 | 20.66 |
| 3 | Semester system should be introduced | 28 | 18.66 |
| 4 | Practical work should be increased | 22 | 14.66 |
| 5 | New areas should be added in the course | 13 | 8.66 |

Majority of 42 Respondents said that curriculum should be changed. 31 said that duration should be increased. 28 said that semester system should be introduced.

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Suggestions of the AIOU Respondents

| S.No | Suggestions | Frequency | % Age |
|------|--|-----------|-------|
| 1 | Certificate procedure should be changed | 15 | 10 |
| 2 | New areas should be added in the course | 12 | 8 |
| 3 | Tutors should provide guidance and deliver | 6 | 4 |
| | lecture | | |
| 4 | Certificate of distance education and | 6 | 4 |
| | conventional education should be alike | | |
| 5 | Computer should be introduced | 6 | 4 |

15 Respondents said that the certificate procedure should be changed. 12 respondents said that new areas should be added to the course. 6 respondents said that the tutors should provide guidance and deliver lecture.

Table No: 7

Comparison of Both the Systems

| Comparison of the respondents | Regular system | Open system |
|----------------------------------|-----------------|-----------------|
| 1. Qualification | - | - |
| Matric | 53 | 18 |
| F.A / F.Sc | 64 | 97 |
| B.A / B.Sc | 17 | 35 |
| M.A / M.Sc | 16 | - |
| 2. Occupation | - | - |
| In-Service | 141 | 105 |
| Un-Employed | 9 | 45 |
| 3. Expenditure on Books | 563 rupees | - |
| 4. Expenditure on Admission | 5000 rupees | 2500 |
| 5. Expenditure on Boarding | 4000 rupees | - |
| 6. Expenditure on Examination | 400 rupees | - |
| 7. Expenditure on Transport | 2800 rupees | - |
| 8. Expenditure on Stationary | 500 rupees | - |
| 9. Opinion on Cost | 3.14 Mean Score | 3.41 Mean Score |
| 10. Opinion on Admission | 3.50 Mean Score | 4.28 Mean Score |
| 11. Opinion on Teachers Training | 3.57 Mean Score | 4.01 Mean Score |
| 12 Opinion on System | 3.73 Mean Score | 3.73 Mean Score |

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| 13. Opinion on Courses | 3.68 Mean Score | 4.24 Mean Score |
|--------------------------------------|-----------------|-----------------|
| 14. Opinion on Courses Difficulties | 3.68 Mean Score | 3.50 Mean Score |
| 15. Opinion on Time Duration | 2.93 Mean Score | 3.74 Mean Score |
| 16. Opinion on Subject Matters | 3.37 Mean Score | 4.15 Mean Score |
| 17. Opinion on Teachers Efficiencies | 3.37 Mean Score | 4.15 Mean Score |
| 18. Opinion on New Area to be added | 3.46 Mean Score | 4.15 Mean Score |
| 19. Opinion on Output | 3.37 Mean Score | 3.54 Mean Score |
| 20. Opinion on Course Deficiencies | 3.53 Mean Score | 2.94 Mean Score |
| 21. Opinion on Follow up Programme | 3.92 Mean Score | 4.04 Mean Score |
| 22. Opinion on Examination | 3.68 Mean Score | 3.89 Mean Score |
| 23. Opinion on Increasing knowledge | 3.78 Mean Score | 2.90 Mean Score |

The average score of cost-effectiveness in the open system is more effective than that of the regular classroom system. This shows the effectiveness of the open system, and hence the hypothesis is proved numerically.

Conclusion

- o It was discovered from the analysis of the data that radio and TV are not accessible as media of instruction in study centres.
- The PTC pass outs were confronted with the problems like the inadequacy of trained teachers and lack of computers and Internet facilities. There is wide spectrum of issues relating to the lack of well integrated media with content difficulties and learning from media and the lack provision of guidance and counselling. The study identified that majority of the study centres were deprived of computer facilities.
- O It was discovered from the analysis of data that regular PTC is cheaper than the PTC of AIOU. The respondents said that courses of PTC of AIOU were more difficult than the regular programme. In addition, majority of the respondents said that the formal system of education provides a better teacher training than AIOU. Similarly, majority of the respondents said that the conventional system of PTC was more effective than PTC of AIOU.
- O It was found that the courses offered by regular system were more difficult than the courses offered by AIOU. The study identified that the regular system for the final examination was satisfactory. It was found that the regular PTC teachers were better than the teachers provided by AIOU. In the same way the respondents claimed that the matter offered by regular system of PTC was richer than the matter offered by AIOU.

Recommendations

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- 1. The courses of both the systems should be made simple and short. The contents of courses should be related to practical life and national needs. The courses may be curtailed to enable the teacher trainees to complete the courses within the prescribed time.
- 2. The training of PTC teachers through AIOU should be made more effective. Training techniques should be changed and modernized. The period of training should also be enhanced.
- 3. Follow up programme in both the systems of formal and non-formal should be introduced. Mobile teams of experts should be deputed for this purpose and manageable areas may be given to them for the follow up programme.
- 4. Examination system of AIOU for PTC teachers should be improved. Most modern techniques of evaluation should be introduced. Techniques of measurement may also be used for obtaining accurate results.
- 5. The instructors / trainers should explain lessons in classes more clearly with the help of AV aids. TV and VCR may also be used. Model lessons may be delivered through teleclass system.
- 6. Tutors in non-formal systems are not selected on merit they should be given training and their appointment be made on merit basis. The competent and wellqualified working teachers should be involved in tutorship.
- 7. Tutorial meeting should be held meaningfully and tutors should explain the contents clearly. The level of the trainees should be kept in view during training.
- 8. The trainers should use new techniques of teaching / training in the classes. The new techniques include the use of educational technology.
- 9. Admission in regular system should be made on merit. Special seats should be abolished .Quota system should be finished. All admission should be done on merit.
- 10. Curriculum of both the systems should be changed and made practical and relevant to national needs. More and more practical work should be included in the curriculum instead of theoretical emphasis.
- 11. Job opportunities for PTC of AIOU should be enhanced and ensured. All the appointing authorities should be directed to entertain PTC candidates of AIOU without any prejudices.
- 12. Some new subjects of current importance like computer science, environment education, population education, drugs education and education technology should be thought-giving emphasis or practical work.
- 13. Time duration of the courses of PTC under formal system should be increased. because all the educational experts have recommended through education policies, reports commissions and committees that present duration is quite insufficient to prepare professionals.
- 14. Physical and instructional facilities in formal system teacher training institutions should be made adequate. Moreover, the buildings are inadequate, old and

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- instructional facilities are not available appropriately and those, which are available, are not used properly.
- 15. Internal system of evaluation / semester system should be introduced in formal system. As this system of internal evaluation is prevalent in most of the countries and it creates sense of responsibilities in teachers and taught.

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