

**RESEARCH PAPER****The Curriculum of Education and 21st Century Learnings: An analysis****¹ Ali Gohar Chang ²Sheema Gohar and ^{3*}Ayaz Latif Siyal**

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***Corresponding Author:** ayazlatifsiyal@ibacc.edu.pk**ABSTRACT**

Education is matter of life and death for us” preached Quaid-e-Azam. Quality Teacher Education is key towards quality education especially K-12 education. The document analysis was done to investigate the National Professional Standards for Teachers in Pakistan to four-year Teacher Education Curriculum in Pakistan. The findings reveal that the teacher education curriculum inculcates all important areas of a teachers should have mastery to teach in class, for example subject matter knowledge, learning environment, basic understanding of foundations of education and child psychology, dispositions (attitude, behavior and values), and performance skills (teaching methods, assessment strategies). The Curriculum seems comprehensive and balanced with respect to 21st century skills and has high frequency of learning and innovation skills. These set of skills are very important to create creative critical-thinkers who can collaborate and communicate. However, a few important areas like global citizenship, community involvement and partnership are to be enriched in the curriculum. NPSTP seems more focused on Learning environment, Islamic and social skills as compared to Collaboration, Partnership, Human Growth and Development, and ICT. The study suggests critical need for enriching teacher education curriculum for preparing pre-service teachers in creating a lifelong learning environment for K-12 students. This study seeks to foster a cadre of professional teachers equipped with national and international professional standards for teachers to create sustainable inclusive learning environments.

KEYWORDS: Curriculum of Education, P21 Frame work for 21st Century Learnings, National Professional Standards for Teachers in Pakistan**Introduction**

Pakistan is a unique multicultural and multiethnic developing country of South Asia having largest refugees and youth population in the world In terms of education the country stands among weakest countries the world. Both, access and quality education indicators are not encouraging in 21st century. According ASER survey, 42% of total population still cannot read and write a letter in any language. 44% children are out of school. Quality education is under heavy clouds because government schools’ teachers are considered as white elephants in promoting quality education (Muzaffar, et. al. 2020; Alifailan, 2017). Let alone literate even highly accomplished people have failed to play their constructive role as individuals in today’s contemporary society for the development of the country. As a result, it seems overall failure of education system to pave way for direly required knowledge, skills and attitudes for development of society.

Along-with basic education, Teacher Education in Pakistan has remained an area of concern right from inception of the country. Bengali (1999) presents an analysis of all eight five-year plans and educational policies from National Education Conference 1947 to Educational Policy 1998-2010. (Muzaffar, 2016). His analysis reveals sincerity of Government of Pakistan (GoP) towards making educational policies and plans, however

except 2nd five-year plan none of the policies and plans achieved the set goals. Aly (2007) confirms that quality of education and teacher education has been poor and getting worse. This is unfortunate because GoP could not improve and sustain the quality of teachers through quality teacher education programs who can influence effectively on students' learning through using appropriate pedagogy, subject matter knowledge, and classroom management skills. Thus majority of incompetent teachers with so-called professional degrees in public sector are considered one of the main causes of malpractices in education system particularly in schools (Aly, 2007). In this regard, most of the critics believe that school education in Pakistan is outdated because "teachers are still a long way away from implementing the new methodology in the classroom" (Riaz, 2011, p.). Many teachers do not receive trainings and they are considered as inefficient (Alifailan, 2017). There are other factors as well, acting against a sound education system, however, poor quality of teachers is considered a major reason for outdated school education. Many believe that the poor quality of teachers is because of outdated curriculum and practices in pre-service teacher education programs. Therefore, in 2010 GoP has come up with major reform with respect to teacher education programs. In this, all traditional pre-service and in-service teacher education programs like Primary Teaching Course (PTC), Certificate in Teaching (CT) and one year Bachelor in Education (B.Ed.) are phased out with Associate Degree in Education (ADE), 1.5, 2.5 and four year B.Ed programs. The later includes other three and seems the important program at present. Pakistan has introduced this four-year Bachelor of Education (B.Ed.) programme with the collaboration of USAID. Hence, the key concern is to analyze and communicate: Does the Curriculum of Education (B.Ed Hons four-year) meets learnings of 21st century?

Literature Review

Teacher Education is all about educating / preparing pre and in-service teachers for teaching and learning. Peters (2012), is of the view that in teaching or preparation of teachers, priority must be given to content then situation and activities where students can learn. This means teacher education is to prepare teachers with knowledge, skills and aptitudes as they can make students learn. Peters further concludes that university can play an important role in teacher preparation with respect to content and skills but at the same time some kind of liberty should be given to schools. Ali (2013), states "Teachers' professional education is viewed as one of the most important factors in improving students' learning. Keeping this in view, many developed and less developed countries pay significant attention to improve the practices of teacher education. Teacher education institutes and the universities can play an important role in designing the curriculum for prospective and in-service teachers who can equip themselves for high quality learning of students.

Teacher Education in Pakistan

Right from the inception of the country, Teacher Education has been given great importance to improve quality education (Bengali, 1999). It is considered as vital factor to bring positive change in the education system of Pakistan (Rehmani 2006). However, in general quality of teacher education is extremely low and most of the teachers are not well trained still (NPSTP, 2009). Ministry of Education (MoE), GoP (2009) states that world class education is only possible through world class teachers and teacher education programs prepared with knowledge, skills and competencies to enhance outcomes of their students. For teacher education, Pakistan has around 300 teacher education institutes. Apart from this, since long, Government of Pakistan has been trying various initiatives/programs to improve quality of teachers. Khan (2007) confirms such initiatives by mentioning the programs like "Junior Vernacular, Senior Vernacular, Primary Teacher Course, Certificate in Teaching, Diploma in teaching, Bachelor of Education, Master of Education, Master of Philosophy of Education, Doctor of Education and Doctor of Philosophy of Education"

The list does not stop here as Government of Pakistan with the collaboration of USAID has started some other innovate programs like Associate Degree in Education, Bachelor in Education four year program. These latest programs have replaced PTC, CT, B.Ed. (one year) and M.Ed. one year (NPSTP, 2009).

Pre-service teacher Education in Pakistan.

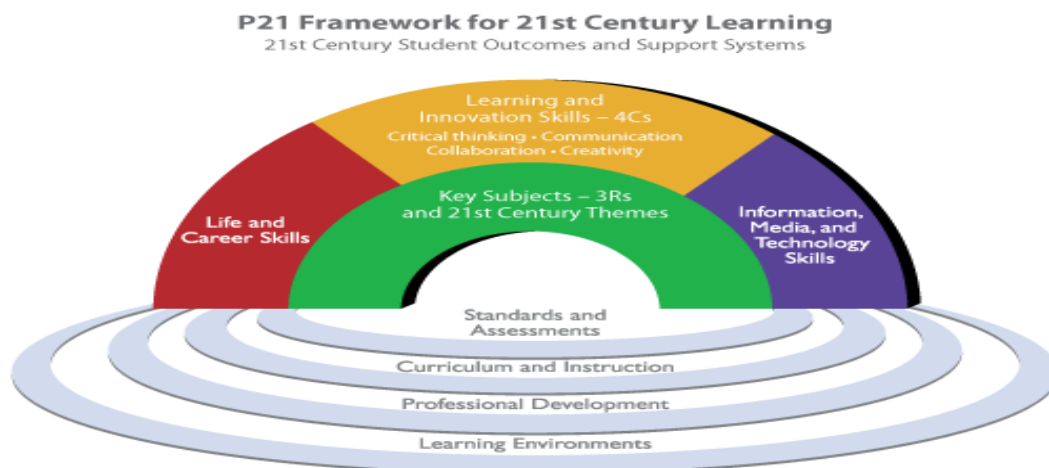
Pre-service teacher education and induction/mentoring are highlighted in latest education policy (National Education Policy 2009) of Pakistan. Chapter 6 of the policy raising the Quality of Education, not only communicates policy but also suggests actions and criteria. According to the policy CT and PTC are replaced with B.Ed and Diploma programmes. However, later on Diploma and B.Ed one-year are replaced with ADE and B.Ed four-year programs. Today, these two ADE and B.Ed four-year are the signature pre-service programs in Pakistan. The latter includes the former.

Impact of Teacher Education on Students' learning

The impact of Teacher Education (TE) on teachers' learning and development is immense. Successful TE experiences have a noticeable impact on teachers' work, both in and out of the classroom. In Pakistan, a study reveals that pedagogical content knowledge and pedagogical content beliefs can be affected by professional development programs (Warnick & Reimers, 1995). In this regard, some other studies showed that improved teacher education could increase the levels of students' achievement (Falk, 2001; Tatto, 1999; Grosso de Leon, 2001). This reveals that TE does not only impact on teachers' learning but also it helps the schools in achieving its ultimate aim i.e. improved students' learning and achievement, because, Young (2001) also found that TE generally strengthen teachers' knowledge, skills and dispositions.

21st Century Skills

We are living in 21st century of 3rd millennium. Throughout human history the only constant has been, change and it is becoming rapid with each passing day. Everything is changing every day and many prior articles including knowledge are becoming obsolete on every other day. Thanks to speedy development in science and technology. Hence, it is great concern of educational institutes that what kind of skills should teachers learn to facilitate the learners of this digital society. Similarly, what kind of knowledge, skills and dispositions learners should have to succeed today and tomorrow? In this regard, P21, Partnership for 21st Century Learning was founded in 2002, in USA. P21 took several years and in 2007 came-up with 21st century skills map and framework for K-12 students.



© 2007 Partnership for 21st Century Learning (P21) www.P21.org/Framework

The framework not only includes three types 21st century skills (Life and Career Skills, Learning and Innovation Skills and Information, Media, and Technology Skills) but also Curriculum (contents/standards/ assessment), Professional Development, and Learning Environments.

Across the world, key subjects like Mathematics and Science are included in the curriculum, however, variation can be seen in the Curriculum with respect to inclusion and exclusion of subjects, themes and topics. Nonetheless, there is an agreement on 21st century skills, professional development and learning environments. Hence, this study analyzes as to what extent our latest Professional qualification (B.Ed. Honours a four year degree) enhances 21st century skills of our teachers. The reason is when teachers are equipped with required skills, standards and competencies they are in position to facilitate the learners to develop the expected skills.

Material and Methods

We selected qualitative research paradigm for the study because it seemed more suitable for this research as the study suggests analysis of contextual documents/contents with respect to internationally accepted framework. Accordingly, it is proposed that in qualitative research, people construct meanings based on observations, analysis and experiments in real context and researchers describe what those meanings are (Bogdan & Biklen, 1998; Merriam, 1998). Such meanings are useful in particular to improve practices. So, my purpose was not generalization but meaning making. "In social research, knowledge is not concerned with generalization, prediction and control but with interpretation, meaning and illumination" (Usher, 1996, p. 18). In this study, we could interpret the data generated through document analysis to make meaning. Hence, a hermeneutic interpretive epistemological way of the construction of knowledge which "assumes all human action is meaningful and have to be interpreted and understood within the context of social practice" (Usher, 1996, p. 18).

Under qualitative research methodology, we decided to use document analysis research method. Document analysis is type of qualitative research in which researcher interprets the nominated documents to generate meaning from the document for the research question or topic, and it is a suitable method to answer my question (Bowen, 2009). Also, custom of tables and graphs makes this mix-method in nature.

In this, we have used P21 Framework for 21st Century skills as formal directed theory for deductive reasoning (Potter and Levine-Donnerstein, 1999 online 2009). However, I have used inducted method too while conventional coding generation and analysis.

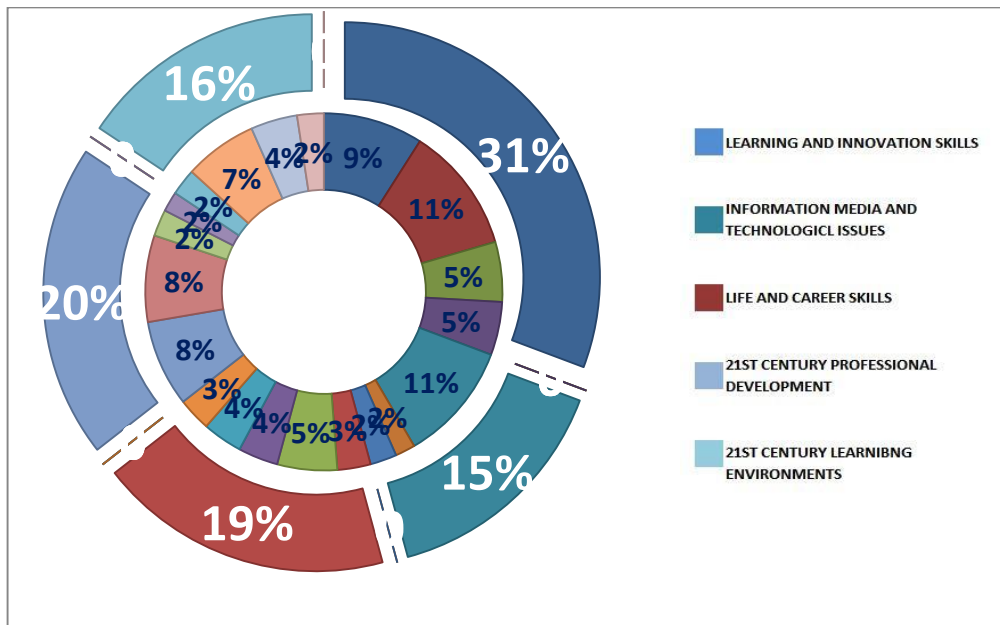
Data generation and analysis

The data is generated through document analysis, which includes, P21 Framework for 21st Century Skills, Curriculum of Education (B.Ed (Hons.) 4 year Degree Program (Elementary and Secondary), Associate Degree in Education, M.Ed. / MS. Education), National Professional Standards for Teachers in Pakistan and National Education Policy (2009) in Pakistan. A framework of 21st century skills was developed to analyze data into themes, sub-themes, codes and categories

Findings

As mentioned above in the introduction, the curriculum of education (B.Ed. Hons. four-year program) was analyzed with respect to five areas of Partnership for 21st century learnings framework. These five areas are offered as five themes in the findings below. The findings disclose frequency of each theme and its subthemes overall in the

Curriculum of Education. It seems encouraging to see inclusion of all themes and sub-themes in the curriculum. Overall findings of each theme are presented below:



Learning and Innovation Skills and Curriculum of Education

This theme has highest frequency in the curriculum. This is the most important theme of the framework because of its 4Cs (Creativity, Critical Thinking, Collaboration and Communication). 4Cs has emerged as another framework of curriculum development and analysis. Indeed it is important and should be given due space in all types of curriculum especially at basic education level.

4Cs (Creativity and innovation, Critical thinking and Problem-solving, Communication and Collaboration) of learning and innovation skills are presented as its sub-themes and frequency of each sub-theme is like 15, 19, 9 and 8. Frequency distribution is like 9%, 11%, 5% and 5%. Overall, percentage of learning and innovation skills is 31%. It is encouraging to see critical thinking and problem-solving with highest frequency because it might help prospective teachers to question the existing practices, solve contextual problems to develop life-time commitment as discussed in the rationale of the curriculum.

However, the curriculum does not clarify that how the graduates will develop required critical-thinking and problem-solving skills to become life-long professionals. In this regard, it should give some clues, guidelines, frameworks, structures to create culture of creativity and critical thinking. For example, engaging learners in project-based learning might create opportunities to collaborate, question, think critically, make hypothesis, craft own ways to solve problems, analyze, synthesize and communicate evidence-based conclusions.

Information, Media and Technological Issues

This theme has 15% total frequency distribution and it is generated from frequency of its each sub-theme; Information Literacy 18, Media Literacy 3 and ICT Literacy 4. Again it is promising because all three sub-themes are integrated in the curriculum. Reflecting on knowledge economy and 21st century as age of information it is positive to see information literacy with such highest frequency. This might help in getting variety of knowledge. However, another theme like ICT Literacy is equally important because it is part of every activity including classroom teaching, learning and assessment. Though, as per curriculum, implementers (teacher education institutes) are

given a room for curriculum enrichment in the content. They can integrate more ICT but it is not clear that they can add certain relevant and emerging Student Learning Outcomes or not. Secondly, whether they are capable enough for the enrichment because the curriculum does not talk about capacity building of teacher education institutes. Therefore, along-with the capacity building the findings suggest revision and enrichment of the curriculum (Muzaffar, & Javaid, 2018).

Life and Career Skills

This is an important theme of the framework because life and career skills are need of time at any workplace these days. Its overall frequency distribution is 19, which is generated from the frequency of its five sub-themes. Such as; Flexibility and Adaptability 5, Initiative and Self-direction 9, Social and Cross-cultural skills 6, Productivity and Accountability 6, and Leadership and Responsibility 5. It is encouraging to see the presence of all sub-themes in the curriculum. This is somehow balanced move towards the professional commitment of prospective teachers. These findings can be verified through another study to see how these skills are being heightened at teacher education institutes and how the graduates are practicing the skills.

21st century professional development.

Findings reveal 20% frequency distribution of life and career skills in the curriculum. All four sub-themes are represented in the curriculum with different frequencies like; teaching strategies 13, classroom practices 13, students learning styles 4, and project-based practices 3. It is assuring to see better frequency of teaching and classroom practices but it is discouraging to see low frequency of project-based practices. This is somehow mismatching with high frequency of critical thinking and problem solving. In my opinion, project-based practices enhance skills of learners, which are required in 21st century. Hence, the curriculum invites revision as to match its philosophy with its practices. Otherwise, it may not achieve its goal of creating a committed teacher by choice.

21st century learning environment.

Learning environment is important factor to achieve expected learning outcomes. It motivates and pulls towards learning. It is optimistic to see 16% total frequency distribution emerging from the frequencies of its four sub-themes; community support 4, real world practices 11, learning tools familiarity 7 and resources sharing 4.

Reflecting on the frequencies it is encouraging to see high frequency of real world linkages. This means that curriculum gives opportunities to the learners to relate theoretical knowledge with daily life practices. However, low frequency of community support and resources sharing reveals that still we are far from inclusive approach where institutions especially schools and community work together. Community involvement is one of the successful models across the world; hence the curriculum may be revised and enriched with this particular area.

Overall Findings

The curriculum guarantees teaching as profession like engineering and medical sciences and emphasizes on professional motivation, commitment and dedication to become teacher. Through this curriculum, Pakistan may prepare and get teachers by choice and overcome the issue of having teacher by-default.

The curriculum inculcates all important areas of a teachers should have mastery to teach in class for example subject matter knowledge, learning environment, basic understanding of foundations of education and child psychology, dispositions (attitude, behavior and values), and performance skills (teaching methods, assessment strategies).

The curriculum has strong component of practicum (teaching). During this course the potential teacher's practice teaching in real setting takes place. They practice theories and learn their application. They reflect on their teaching practice for improvement. This makes then research their actions and improve the actions. Also, this helps them become reflective practitioners and life-long learners.

The curriculum equips prospective teachers with research skills especially action research, as teacher can initiate innovative practices, reflect on the actions for further improvement. In this regard, they are expected to follow action research cycle like; plan, act, reflect and re-plan. Prospective teachers learn a lot of reflecting and re-planning because they observe, refer data, look the literature, question their practices and come-up with healthier plan for the second stage.

The curriculum empowers universities and autonomous teacher education institutes for curriculum enrichment especially in the area of pedagogy and content (subject matter course). This empowerment gives freedom to fill the gap like community support, resource sharing, networking and partnership.

The Curriculum has high frequency of learning and innovation skills. These set of skills are very important to create creative critical-thinkers who can collaborate and communicate. Under these set of skills critical-thinking and problems-solving skills have highest frequency and critical-thinking is introduced as a separate subject. This is encouraging to find-out but one can confirm through another study to see, whether teachers are providing such opportunities to the k-12 students or not.

The curriculum provides guidelines and recommended readings for learners and practitioners to create better academic environment in classrooms and at school.

Conclusion

The study asserts that Curriculum of Education (B.Ed. honours four-year) is quite comprehensive with respect to P21 framework for 21st century skills especially 4Cs. It is heartening to see better frequencies of critical thinking, creativity, learning environments, information literacy, teaching strategies, and real world classroom practices. However, the curriculum calls for enrichment in-terms-of community involvement, global citizenship, cross-cultural understanding, project-based learning, community involvement, and partnership, networking, and media literacy.

Recommendations

- Impact study may be conducted to see the impact of B.Ed. four year education on quality of teaching and learning.
- Comparative analysis of traditional B.Ed. (one-year and B.Ed. four year) may be conducted
- Survey of National Professional Standards for Teachers in Pakistan may be conducted.
- Curriculum may be revised with respect 21st century skills and National professional Standards for Teachers in Pakistan
- Areas are to be enriched further in the Curriculum of Education are; Community involvement, Mobile learning, Increase frequency of Project-Based Learning, More emphasis on Learning styles of children, Mobile learning, Networking with other institutions and Global citizenship.

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