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Impact of 4Cs Skills Regarding to Enhance Classroom Practices at Non-Formal Primary Schools in District Chiniot

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Abstract
Impact of 4Cs Skills Regarding to Enhance Classroom Practices at Non-Formal Primary Schools in District Chiniot. The study was a descriptive qualitative research design. Study used to gather data from 20 teachers from non-formal primary schools in Chiniot District whom were interviewed using semi-structured interviews protocol by using purposive sampling technique selected. Thematic analysis techniques were used to analyze the data. The results showed that teachers understood the significance of 4Cs and applied the questioning technique, interactive discussion, collaborative learning, problem solving, and creative classroom practices to develop the 4Cs. The effective implementation was however hampered by a lack of professional development opportunities, insufficient teaching materials, lack of curricular flexibility, lack of space in schools, and examination-focused pedagogy. The study found that a successful integration of the 4Cs takes place when there is continuous professional development were existed; the presence of supportive educational policies; curriculum changes; availability of the teaching resources; and teaching approach that is learner-centered. Educational authorities are advised to improve teacher training courses and ensure that teacher training equips them with the necessary competencies to integrate 21st century skills effectively in their teaching methods to boost up instructional effectiveness and the quality of primary education.

***Keywords**: Critical Thinking, Communication, Collaboration, and Creativity.*

Introduction

In the context of the 4Cs, teachers play a pivotal role in the successful implementation of 4Cs in education by devising and implementing teaching methods that promote the 4Cs. High-quality teaching uses interactive approaches such as group work, inquiry-based learning and project learning, which help students to think critically and engage in peer collaboration. However, there are several obstacles for many teachers to implement such practices, including insufficient training, resources, and institutional support. Teachers' understanding of the 4Cs and their

openness to new teaching approaches can affect their capacity to implement the 4Cs in teaching. To support teachers in developing the 21st-century skills in the classroom, therefore, continuous professional development and training programs are needed (Sukirwan et al., 2024).

Furthermore, it is noted that the incorporation of 4Cs into education is not just the responsibility of the teacher; it is also shaped by other systemic influences like curriculum design, educational policies and institutional support. However, in many developing areas like Faisalabad, the education system is still based on traditional teaching approaches, emphasizing on rote-learning rather than skills development. This leads to a mismatch between the curriculum that is planned and what is delivered in the classroom, which frequently focuses on contemporary skills. It is necessary to pay attention to this gap comprehensively and effectively, which should be solved by curriculum reform, teacher training and sufficient resource provision to promote innovative teaching. If these are not made, the implementation of 4Cs wasbe a great challenge (Cosgrove & Cachia, 2025).

The linkage between the 4Cs is an integral component of this conceptualization, since the 4Cs are interrelated and reinforcing. Communication is frequently a vital skill for critical thinking in order to clearly present ideas and reasoning, and collaboration is reliant on both communication and thought to accomplish common goals. Likewise, collaborative interactions and exchanges of ideas can enhance creativity, and critical evaluation and reflection can lead to creativity. This interrelationship emphasizes the need for the simultaneous instruction of all four skills instead of teaching them sequentially. Educational research also highlights that integrating a holistic approach to developing the 4Cs resulted in better learning experiences and prepared students to face real world problems which demands that several of the 4Cs skills are applied at the same time (Care et al., 2021).

The implementation of the 4Cs framework can help enhance the quality of education and bring teaching closer to international standards in situations such as Chiniot Districtwhere traditional teaching methods are still being used. Incorporating these skills into primary education sets the groundwork for future students to become critical thinkers, effective communicators, team players, and creative problem solvers (Saavedra & Opfer, 2021).

Statement of the Problem

While the world has been focused on 21st century skills, very few classroom environments have a strong presence of the 4Cs – Critical Thinking, Communication, Collaboration, and Creativity. Most schools still continue to have teacher-centred approaches to teaching and learning, where learning is achieved through memorization and repetition, rather than through learning skills, limiting students' potential to acquire higher-order thinking and application skills. The lack of training of teachers and their ability to use 21st century pedagogical approaches are also important problems. However, many teachers have not been provided with sufficient professional development to integrate the 4Cs in their instructional methods, leaving the theoretical knowledge of new teaching methods and their application in the classroom to be disconnected. In addition, a significant gap between the curriculum statements and actual classroom practices, especially in districts like Faisalabad, can be seen. While curricular intentions may focus on skill building and learner-centered practices, factors such as structure, institutional, and instructional constraints may not be present in the classroom. Thus, the need to evaluate teachers' knowledge and skills to use the 4Cs in teaching is like a strong force. Assessment of these competencies can be utilized to show where a gap exists and evidence can be provided to enhance teacher training and improve instruction in order to meet the growing 21st century educational needs so there is a dire need to see the Impact of 4Cs Skills Regarding to Enhance Classroom Practices at Non-Formal Primary Schools in District Chiniot.

Objectives of the Study

1. To Analyze the Impact of 4Cs Skills Regarding to Enhance Classroom Practices at Non-Formal Primary Schools in District Chiniot

Research Questions

How does Analyze the Impact of 4Cs Skills Regarding to Enhance Classroom Practices at Non-Formal Primary Schools in District Chiniot

1.1 Significance of the Study

This study is important because it has global challenges and local educational issues of Pakistan. As the issues of the 21st century are constantly emerging, like unemployment, population growth, poverty, and lack of job opportunities, development of 21st century skills are of great significance to prepare a competent and skilled workforce. The study was be applied to the 4Cs (Critical Thinking, Communication, Collaboration, Creativity), thus enabling to bridge the gap between traditional education and the requirements for modern skill based learning. The results of this study was be advantageous to the teacher as he or she was be able to better develop better teaching strategies to develop and teach the 4Cs skills in the classroom. It was also enable learners to build core skills needed for learning and employment. Moreover, the research was serve as a guide to curriculum designers when developing and updating curricula in accordance with the standards of education and labor market requirements around the globe. This lays the foundation for further studies into student anxiety since these findings and insights gained in this study would play a direct role in developing future feasible interventions and support systems for students.The findings from this research affected the needs of all three groups including students as well as educators and policy makers.

1.2 Limitations of the Study

The study was delimited to District Chiniot due to limitations of time, financial resources, and accessibility.

1.3 Delimitations of the Study

- **Impact of 4Cs Skills Regarding to Enhance Classroom Practices at Non-Formal Primary Schools in District Chiniot**
- It was confined to a qualitative research approach to explore the phenomenon in depth rather than using mixed or quantitative methods.
- The sample size was restricted to only 20 teachers from the non-formal education department.
- Teachers from formal, private, and special education institutions were excluded from the study.
- The research focused specifically on selected participants within a limited geographical and institutional context to ensure manageability and depth of analysis.

Review of Literature

The second theme focused on teachers' classroom practices and instructional strategies used to promote critical thinking, communication, collaboration, and creativity among primary-level students. The findings revealed that teachers employed various student-centered approaches, although the extent of implementation varied according to classroom conditions and available facilities.

The findings revealed that teachers promoted critical thinking mainly through questioning techniques, problem-solving activities, and discussions based on real-life situations. Teachers reported that encouraging students to explain their answers and provide reasoning helped them develop deeper understanding and analytical abilities.

The analysis showed that questioning was considered one of the most practical strategies for stimulating students' thinking processes. Teachers attempted to move students from memorizing information toward understanding concepts and applying knowledge in different situations.

These findings support recent educational research indicating that inquiry-based and problem-oriented teaching strategies improve students' analytical abilities and encourage deeper learning. Zohar and Barzilai (2021) highlighted that teachers play a central role in developing students' higher-order thinking by designing classroom activities that require reasoning and evaluation.

The findings showed that teachers used different interactive activities to improve students' communication abilities. These activities included classroom discussions, oral presentations, question-answer sessions, and opportunities for students to express their opinions.

Teachers emphasized that communication development requires an encouraging classroom environment where students feel comfortable sharing their ideas. The findings suggested that students' confidence increased when teachers provided opportunities for active participation.

Recent research supports these findings by indicating that interactive classroom environments enhance students' communication skills by increasing engagement, confidence, and meaningful participation in learning activities (Alamri et al., 2022).

The findings indicated that teachers used collaborative learning strategies such as group assignments, peer discussions, and cooperative classroom activities to develop teamwork skills among students. These activities allowed students to exchange ideas and support each other during learning tasks.

However, teachers reported that implementing collaborative learning required effective classroom management. Differences in students' abilities, participation levels, and classroom size influenced the effectiveness of group activities.

The findings are consistent with recent literature suggesting that collaborative learning approaches improve students' social skills, problem-solving abilities, and shared responsibility for learning outcomes (Gillies, 2022).

The findings showed that teachers encouraged creativity through practical and activity-based learning approaches. Teachers reported using drawing, storytelling, projects, and classroom presentations to allow students to express their ideas in creative ways.

The analysis revealed that creativity-based activities increased students' motivation and engagement because they provided opportunities for exploration and personal expression. However, teachers indicated that limited instructional materials sometimes restricted the implementation of creative activities.

These findings support recent research indicating that creativity develops effectively when students are exposed to flexible learning environments that encourage imagination, experimentation, and independent thinking (Henriksen et al., 2022).

The second theme revealed that teachers use different instructional practices to promote the 4Cs among primary students. Questioning, discussions, group activities, and creative tasks were identified as important strategies for developing these competencies. Although teachers demonstrated willingness to implement student-centered approaches, their practices were influenced by contextual factors such as classroom conditions, curriculum requirements, and availability of teaching resources.

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Methodology

A descriptive qualitative design enables the researcher to explore teachers' Impact of 4Cs Skills Regarding to Enhance Classroom Practices at Non-Formal Primary Schools in District Chiniot. This design offers a chance to explore teachers' experiences in their context in which education takes place, as social and institutional factors affect educational practices.

Population

The population of present study is 20 teachers of primary schools engaged in Non Formal Education in district Chiniot. These teachers are the people who know first-hand of classroom practices and can offer excellent feedback on how the four competencies – critical thinking, communication, collaboration and creativity – are being developed and implemented.

Sampling Technique

Purposive sampling was used for selecting participants in this study. For this study, teachers were chosen based on involvement in primary level teaching and having useful information on the integration of 4C in teaching.

Sample Size

In the present study the number of sample teachers is 20 from primary level teachers of District Chiniot. This is deemed to be an appropriate number, as the results of the qualitative interviews with a focused group of participants can give detailed information about the experiences and perspectives of the teachers on the implementation of the 4Cs. The answers that come out of these participants was assist in identifying trends, obstacles and practices associated with critical thinking, communicating, working with others, and creativity within the primary school context.

Research Instrument

The interview guide was open-ended questions based on the four dimensions of 4Cs – critical thinking, communication, collaboration and creativity. The questions were directed to teachers'

awareness of these competencies, to strategies implemented in the classroom to encourage these competencies, and to difficulties encountered in implementing the competencies.

Validity

To ensure credibility, the interview guide was carefully developed, participants were chosen carefully, and participants' responses were interpreted accurately. The researcher was keep comprehensive records of the research process to increase the dependability and conformability of the research. Transfer ability were enhanced by providing a description of the research context, participants and procedures. These strategies were enabled readers to see how the findings are relevant to other educational contexts.

Data Collection

In this study, Semi-Structured interviews were used to gather data from the primary school teachers of District Chiniot. Participants was be contacted and notified about the purpose of the study prior to conducting interviews. Interviews were held in a time and location convenient for participants to ensure a comfortable environment to share their experiences.

The interviews was given participants the opportunity to reflect on, share experiences, and talk about their classroom experiences and understanding of critical thinking, communication, collaboration, and creativity. The researcher was take note of and arrange the participants' responses to be analyzed later, ensuring accuracy and completeness of the response gathered.

Data Analysis (Thematic Analysis)

Thematic analysis were given through several stages: familiarizing oneself with the collected data, developing initial codes, finding potential themes, reviewing and refining themes, defining themes, and creating a report. The responses that are made during the interviews was closely studied for common themes about teachers' understanding and practice of the 4C's.

Table 1 *Demographic Characteristics of Participants*

Characteristics	Categories	Frequency (n)	Percentage (%)
Gender	Male	10	50
	Female	10	50
Teaching Experience	1–5 years	6	30
	6–10 years	8	40
	Above 10 years	6	30
Educational Qualification	Name degree	I	%
	Graduation	7	35
	Bachelor of Education (B.Ed.)	9	45
	Master’s Degree	4	20

Table 1 indicates that the demographic profile indicates that participants represented a balanced distribution of male and female teachers, with varied professional experience 1–5 years, 30% responses, 6–10 years, 40% responses and Above 10 years have 30% responses. Teachers with different levels of experience contributed diverse perspectives regarding classroom practices, teaching strategies, and challenges associated with integrating 21st-century skills.

Table 2 *Major Themes and Sub-Themes Identified from Interview Data*

Major Themes	Sub-Themes
Theme 1: Teachers' Understanding of 4Cs	Understanding of critical thinking, communication, collaboration, and creativity
Theme 2: Classroom Practices for Developing 4Cs	Teaching strategies, classroom activities, student engagement
Theme 3: Teachers' Role in Promoting 4Cs	Teacher facilitation, supportive learning environment, professional development
Theme 4: Challenges in Implementing 4Cs	Limited resources, curriculum constraints, assessment practices, lack of training
Theme 5: Suggestions for Effective Implementation	Teacher training, curriculum improvement, institutional support

The identified themes demonstrate that teachers recognize the importance of 4Cs but experience several contextual challenges in implementing these skills effectively. The findings indicate that teachers' practices are influenced by classroom conditions, available resources, curriculum requirements, and professional development opportunities.

Table 3 *Classroom Practices Used for Developing 4cs*

Skill Area	Common Classroom Practices	Number of Teachers Reporting (n)--%
Critical Thinking	Questioning techniques, problem-solving tasks, analytical discussions	15-75%
Communication	Classroom discussions, presentations, student participation activities	17-85%
Collaboration	Group activities, peer learning, cooperative tasks	14-70
Creativity	Project work, drawing, storytelling, practical activities	16-80%

Table 3 indicates that 75% non formal teachers were agreed about questioning techniques, problem-solving, tasks, analytical discussions, 85% non formal teachers were agreed about classroom discussions, presentations, student participation activities, 70% non formal teachers were agreed about group activities, peer learning, cooperative tasks, and 80% non formal teachers were agreed about project work, drawing, storytelling, practical activities.

Findings

1) Table 1, indicates that the study analyzed the implementation of the 4Cs (Critical Thinking, Communication, Collaboration, and Creativity) among primary school teachers in Faisalabad. Based on the data analysis, the following major findings were obtained:

2) Table 4.6 indicates that 80% non formal teachers were agreed about lack of materials, technology, and learning facilities, 90% non formal teachers were agreed about focus on memorization and syllabus completion, 70% non formal teachers were agreed about difficulty managing interactive activities, and 75% non formal teachers were agreed about lack of professional development opportunities.

3) Table 4.7 indicates that 90% non formal teachers were agreed about regular workshops and professional development opportunities, 85% non formal teachers were agreed about inclusion of activity-based and skill-oriented learning, 80% non formal teachers were agreed about availability of instructional materials and technology, and 75% non formal teachers were agreed about evaluation of creativity, problem-solving, and practical skills.

5.3 Conclusion

1. It was concluded that majority of non formal teachers were agreed about guiding students through questioning, activities, and discussions, as well as encouraging participation, confidence, and sharing of ideas, therefore, promoting active learning instead of passive memorization and need for training related to modern teaching practices

2. It was concluded that teachers viewed their role as facilitators who guide students in constructing knowledge rather than simply delivering information. Participants emphasized that effective teaching requires encouraging students to explore ideas, ask questions, and participate actively in learning activities.

3. It was concluded that majority of non formal teachers were agreed about regular workshops and professional development opportunities, as well as some inclusion of activity-based and skill-oriented learning, some agreed about availability of instructional materials and technology, and maximum were agreed evaluation of creativity, problem-solving, and practical skills.

Discussion

The diversity of participants strengthened the findings because teachers' experiences and professional backgrounds influence their understanding and application of innovative teaching approaches. Previous research has highlighted that teachers' qualifications, experience, and professional exposure influence their ability to adopt student-centered approaches and promote higher-order skills among learners (González-Pérez & Ramírez-Montoya, 2022).

In a study by Lo and Romero (2025), they examined reflective practice in pre-service teachers and came up with creativity as one of the important competency that has to be developed during the teaching process. They found that reflection empowered teacher candidates to examine problems, propose other solutions and enhance the decision making process in teaching. Based on the researchers' findings, it can be concluded that reflective activities are able to enhance creative thinking by forcing teachers to move beyond routine activities. The study has emphasized the importance of creativity in the development of teachers to implement innovative and learner-centered approaches in modern classrooms.

Taqwa et al. (2025) conducted a review of international studies that used the 4C framework, where creativity was found to be a significant skill relevant to innovation and education enhancement. Their results indicated that creativity leads to problem-solving skills, adaptability and lifelong learning skills. The researchers said schools need to have a learning space to allow students and teachers to experiment, collaborate and develop new ideas. They advocated for the reinforcement of teacher training programmes in order to train teachers to imitate and apply creativity-oriented teaching methods across various subjects. The findings revealed that teachers promoted critical thinking mainly through questioning techniques, problem-solving activities, and discussions based on real-life situations. Teachers reported that encouraging students to explain their answers and provide reasoning helped them develop deeper understanding and analytical abilities.

The analysis showed that questioning was considered one of the most practical strategies for stimulating students' thinking processes. Teachers attempted to move students from memorizing information toward understanding concepts and applying knowledge in different situations. These findings support recent educational research indicating that inquiry-based and problem-oriented teaching strategies improve students' analytical abilities and encourage deeper learning. Zohar and Barzilai (2021) highlighted that teachers play a central role in developing students' higher-order thinking by designing classroom activities that require reasoning and evaluation.

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These findings support recent research indicating that creativity develops effectively when students are exposed to flexible learning environments that encourage imagination, experimentation, and independent thinking (Henriksen et al., 2022). The second theme revealed that teachers use different instructional practices to promote the 4Cs among primary students.

Questioning, discussions, group activities, and creative tasks were identified as important strategies for developing these competencies. Although teachers demonstrated willingness to implement student-centered approaches, their practices were influenced by contextual factors such as classroom conditions, curriculum requirements, and availability of teaching resources.

Recommendations of the Study

1. Assessment systems may be redesigned to evaluate students' problem-solving abilities, creativity, communication skills, and practical application of knowledge.
2. School administrations and educational authorities may provide continuous support, encourage innovative teaching practices, and create opportunities for teachers to share effective strategies for developing 4Cs.
3. The findings of this study may provided important implications for primary education stakeholders by highlighting the importance of developing 4Cs among students. The study emphasizes that teachers are key agents in promoting critical thinking, communication, collaboration, and creativity; therefore, improving teachers' pedagogical knowledge and classroom practices can directly contribute to better learning outcomes.

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