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Restructuring and Reskilling the Educational Curriculum adapting Pedagogical Approaches promoting Lifelong Learning: A Study of Teacher Education Institution

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Abstract
Teacher education institutions play a critical role in creating a good learning environment using best practices and innovative pedagogies to produce trained and efficient teachers. To meet the dynamic needs of the society demands a change in the existing educational set-up and becomes imperative for the educators and students to be consistent learners and be open to new ideas and skills to reskill and upskill themselves at the personal and professional front and remain productive in their roles.

The present study is exploratory in nature and is an endeavour to examine the efficacy of course curriculum designed as per NEP 2020 and Sustainable Development Goal 4 (Quality Education) for the lifelong learning (NEP 2020, Pt 11.5) and continuous skill development of prospective teachers. Using a mixed method approach, the sample population of the research study includes 90 prospective teachers of B.Ed and M.Ed Program of Teacher Education Institution (Department of Education, Chitkara University, Punjab).

The findings of the study revealed that the teacher education institutions well equipped with human, financial and physical resources should focus on the continuous development of the learning ecosystem adapting to strategies promoting continuous learning. The curriculum should be re-designed and activities like integration of Artificial Intelligence in education (NEP 2020, Pt 23), art and aesthetics, grooming sessions, interview preparations and e-portfolio construction, language proficiency, story-telling, role play, content creation through blogs, comic strips, podcast etc. should be promoted to enhance the skills required to make them job oriented and meeting the industry demands.

Keywords: Teacher Education Institution, Innovative Pedagogies, Continuous Development, Learning Ecosystem.

Introduction
The Indian education system in the contemporary times fails to cater to the diverse learning styles of the students (Dahal, 2022) and needs a revolutionary transformation in compliance to the fast-changing technology, the dynamic societal needs and high expectations from the individuals at the workplace. With the lack of job opportunities and increasing number of graduates and post-graduates every year, the existing education system becomes inadequate to prepare the students to fit in the future jobs (Mallya, 2018). This demands the restructuring and reskilling of the educational curricula to address the traditional teaching methods as it does not promote critical and analytical skills to solve real life challenges and adopt and promote digital literacy (Ganicheva, et.al, 2019).

A connect between industry and academia (Kettunen, et.al, 2022) (Balakrishna, et.al, 2024) is essential in the changing times and demand a learner-centric approach. The responsibility lies on the shoulders of the educators to focus on lifelong learning and upbringing the students as per the needs of the market. Hence, the teacher education institutions should restructure the curricula integrating technical, data analysis and soft skills thus, promoting experiential and inquiry-based learning (Ismail, et.al, 2006). The integration of new pedagogical approaches and different teaching tools and techniques in alignment with NEP 2020 will not only align the educational goals with the global challenges but also direct educational landscape towards the path of sustainability.

The pedagogical efficacy of teacher educators positively impacts the professional development. Project-based learning develops the skills necessary to cater real time challenges (Reychav, Elyakim & McHaney, 2023). In addition to improving competitiveness and employability, lifelong learning also fosters social inclusion, active citizenship and personal growth (Cronholm, 2021).

To adequately educate the next generation for the complex and changing world, lifelong learning for K–12 education is the need of the hour. One of the main goals of school reform is to help children acquire the lifelong learning skills to be resilient. Learning involves more interactions between teacher educators and prospective teachers and involves designing and establishing a culture of lifelong learning both inside and outside of educational institutions. Thus, teaching and learning process should be structured in a way to establish the conditions fostering continuous learning (Ng, Betsy 2023). The role of digitalization in teaching and learning plays a critical role for the future aspirants, with a focus on lifelong learning programs in teacher education institutions (Cendon, 2018). Different types of assessments should be integrated along with the learning strategies that lead to lifetime learning (Van et. al., 2019).

Methodology and Findings

Different pedagogical tools were used for the study to evaluate the impact of various pedagogical tools and include;

I. Reflective Teaching:

1.1 Peer observation:

Peer observation is a cooperative learning exercise in which experts or faculty members support one another by analysing one another's instruction, exchanging and clarifying their observations. They discuss various approaches to teaching, get inputs from peers and students, and investigate fresh concepts (Hendry & Oliver 2012) that can enhance existing teaching methods (Katal et. al., 2022).

A group of 9 prospective teachers were told to give constructive feedback on the simulated teaching practice of their peers. A semi-structured individual interview was conducted on nine prospective teachers about their experiences and usefulness of peer observations. The sample of teachers was taken from different subject areas which included Science, English, Social Studies, Mathematics, Hindi, Economics and Psychology. On the basis of peer feedback taken by nine student teachers having expertise in different subject areas and subsequent decoding of the information, common themes like learning how to teach, what to teach and difficulty levels of the step/s in their teaching and their learning from other's feedback were identified.

1.2 Simulated teaching:

The simulation method is a practical and efficient way to build the teaching abilities needed to create qualified teachers (Njagi, 2023). To attain the intended learning outcomes, simulated teaching, an immersive teaching method similar to real-world situations, issues, processes, or abilities was used. Students were engaged with the scenario and apply their knowledge and abilities, exercise critical thought, and derive significance from the exercise (Dale & Barret, 2017). Students who participated in experiential learning possessed a deeper comprehension of the subject matter compared to those who attend standard lecture-only classes (Hakeem, 2001). Opportunities to expand and improve the practice, evaluation, and feedback given during teacher education were presented via simulations. Through problem scenarios, decision and action testing, experience with outcomes, and cost-effective, harm-free behaviour modification, users can engage in simulations (Kaufman & Ireland, 2019).

The nine aspiring teachers were given a classroom environment to conduct a lesson delivery for both simulated and micro-teaching on separate days. They were given advance instructions to create an extensive lesson plan. A comprehensive checklist of lesson observations for assessment was provided to evaluators. The same group of teachers were then given the opportunity to practice their final teaching skill, and the results showed an improvement in the prospective teachers' overall scores. Since behaviour modification is the ultimate goal of education, simulation has been shown to be effective, and B. Ed. colleges should embrace it in its purest form.

S. No.	Scores of Prospective Teachers Obtained in Simulated Teaching and Skill in Teaching	
	Simulated Teaching	Skill in Teaching
1	20	22
2	16	21
3	18	20
4	10	18
5	15	22
6	16	18
7	16	22
8	20	24
9	13	16

Table (1): Student scores of Simulated Teaching

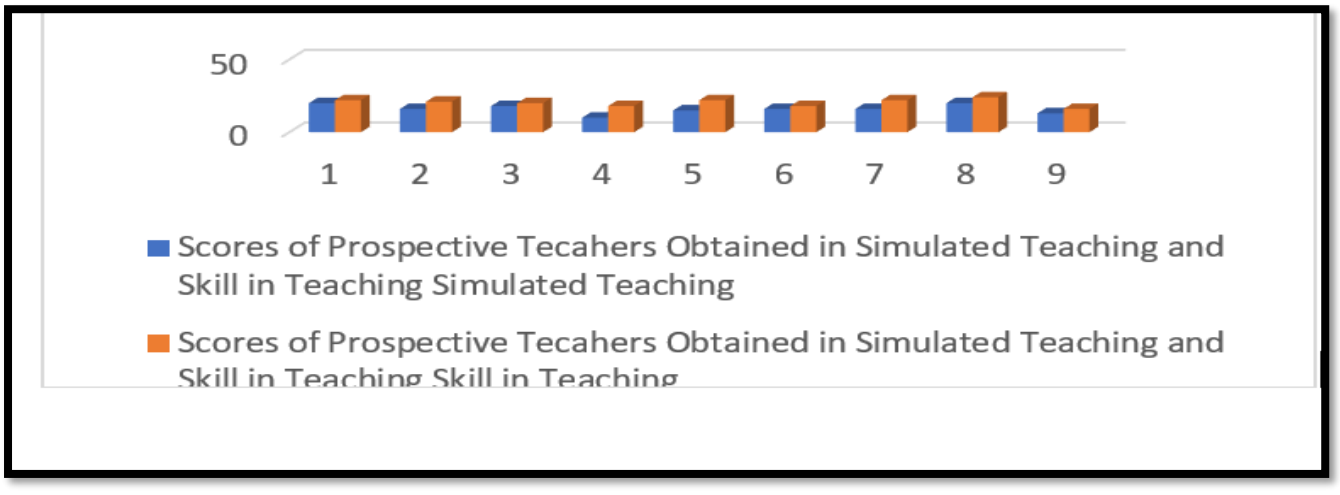


Fig (1): Student scores of Simulated Teaching

II. Inquiry Based Learning:

To enhance critical skills, following inquiry- based learning methods were used in the study:

2.1 Case Studies:

Teacher Educator institutions with innovative curriculum in undergraduate programs favour case study analysis as an active, problem-based, student-centred, teacher-facilitated teaching technique fostering the development of critical thinking abilities in the students (Seshan et. al., 2021). It is considered as a preferred method for teaching a variety of concepts in science and social sciences (Boney, 2015). Case studies concentrate on the relationship to the environment, or context (Flyvbjerg, 2011).

2.2 Action Research:

It is an effective instrument that can be trained, mentored, and improved over time in a variety of informal, traditional, and non-traditional learning environments (Riedy,2023). Improved pedagogies are desperately needed to upset power dynamics and develop students into researcher-activists (Bradbury, 2022). In order for student research to actually contribute to improving the world, it is now vitally required to envisage and implement changes in curricular practices and pedagogy (Sharma et al., 2022). The steps of action research were thoroughly explained to interns pursuing a B. Ed. After that, they were instructed to use project work or storytelling as pedagogies for action research. The thirteen B. Ed. interns provided the investigators with first-hand information about their experiences conducting action research in the classroom with these pedagogies. The aspiring educators reported that they learnt better when given instruction using the case study method. Concepts were applied in a variety of other contexts and were easily understood and also retained for extended period of time. This suggested that in order to make the education sector more competency-oriented, action research ought to be a prominent component of the curriculum in B. Ed. Colleges.

III. Art Integration

Art integration in education is a creative pedagogy used in different disciplines of science, social science and arts. Various forms of Arts (dance, visual arts, music, storytelling etc) as a technique can be used to teach the concepts in a more engaging way thus promoting 360-degree holistic learning. It covers all domains-Cognitive socio-emotional and psychomotor as well. (Srivastava, 2023). The study covered art & craft integrated activities, role plays, and comic strips to analyse the impact of art integrated activities in the subject of social science and English. It enriches learning and develops creative skills. 51 students were assigned a task to make five lesson plans with art integrated activities for social studies such as best out of waste, use of comic strips for pedagogy courses and making posters on career exhibition (after grade 10th for medical and non-medical streams, universities providing those courses, career opportunities, eligibility criteria etc. (Fig 2) in guidance and counselling course

Fig (2): Poster Making Samples created by students

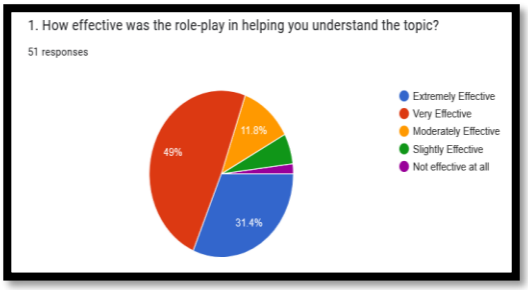
Students were able to make posters after research using CANVAS platform, thus developing digital skills.

3.1 **Comic Strip** as an educational tool aims to bridge the gap between learning and fun thus developing creative and critical thinking skills. The combination of images and text in comic strips aims to retain information for a longer period of time and boosts the confidence among the students with their reading skills. B.Ed Students of Sem 2 were assigned to create a comic strip on one topic each of their teaching subjects taken in B.Ed to give a comprehensive picture of the concept. (samples shown in Fig 3)

Fig (3): Samples of comic strips of students

3.2 Role plays as a pedagogical tool demonstrates a meaningful learning for the students as it has the potential to analyse and understand various situations in the classroom setting (Aura, et.al, 2023). It facilitates the educational curricula by developing the skills required by

21st century learners (Krebt, 2017). Seven topics were shortlisted under the module based on various situations in the schools such as Mentor-Mentee meetings, Handling PTM in schools, reforming of school curricula, interview scenario, bullying of students in the classroom, leadership styles and conflict management. After performing, the students were assessed based on their performance followed by a feedback form. Following are a few samples of the responses.



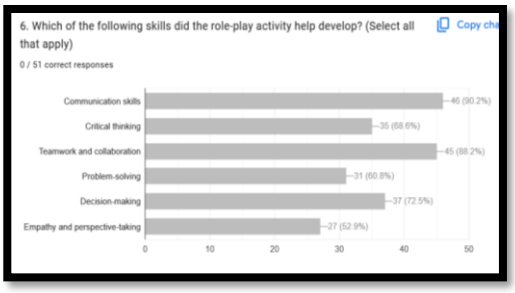


Fig (4): Feedback from students

IV. Digitalization of Curriculum: With the advancement in technology moving at a fast pace, digital learning is dominating the learners giving them more flexibility and access to teaching -learning at distant places. Many platforms are used for ensuring digital learning such as:

4.1 Flipped learning is an approach where the study material is shared in the form of pre-read material. The discussions are done in face-to-face mode for deeper knowledge of the concept thus encouraging critical thinking and problem-solving skills**.** Suggestive readings are also shared with the students.

4.2 Developing online content: YouTube Videos, educational reels form a part of the assessment and learnings of the students.

4.3 Online platforms included Microsoft Teams, Google Meet, Zoom etc. The classes and webinars were also integrated as a part of digital literacy.

4.4 Digital assignments including google sheets, documents, google classrooms and e-portfolios were also used for the assignments and repository for related data submission or sharing.

The prospective teachers were given the exposure of the tools mentioned. Though they faced various challenges like adapting to the new technology and tapping to the needs of the diversified learners with different cultural backgrounds, classroom management and increased work pressure etc but later better performance, curricula development and enriched learning was the outcome of the pedagogical approaches integrated into the educational curricula.

Conclusion

The restructuring and reskilling of the educational curricula is a necessity in the global landscape. Traditional teaching methods and rigid educational framework is inadequate to equip learners with the 21st century skills. By integrating reflective teaching, inquiry-based learning, Art integration education and digitalization of education caters more learner engagement and inclusivity thus making them future-ready.

A well-structured curriculum aims to bridge the skill gaps, encourage adaptability to new technological changes and promote equity, ensuring their connectivity with the increasingly complex and interconnected world. Policymakers, educators, and stakeholders must work collaboratively to implement meaningful reforms, prioritizing learner-cantered approach, interdisciplinary education and flexible learning pathways, promoting lifelong learning.

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