

Constructivist Conceptions Without Structural Conditions: Pre-Service Teachers' Understanding of Problem-Based Learning for Citizenship Education in Pakistan

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Abstract: *This study examines constructivist and student-centred conceptions of pre-service teachers towards problem-based learning (PBL) for teaching citizenship at elementary schools in Pakistan. However, these conceptions are in conflict with the situation they are likely to face as actual teachers. This is a qualitative study with ten out of the ten final-year BS Education students from the public university of Pakistan, and its findings are presented in this paper using Reflexive Thematic Analysis. Four themes emerged: PBL as active knowledge construction, citizenship as values-based, action-focused practice, PBL as a road to civic agency and as a critical thinking process, and barriers to PBL implementation, both structural and contextual. The cross-theme analysis resulted in the following central contradiction: participants have epistemologically sound, constructivist understandings of PBL-based citizenship education, but lack the institutional conditions for enactment. The study concludes that attention to pre-service preparation alone is not enough; there needs to be structural investment in a more flexible curriculum, provision of resources, and sustained professional development support at the national level.*

Keywords: PBL, Citizenship Education, Pre-Service Teachers, Pakistan, Constructivist Pedagogy, Elementary Education, Reflexive Thematic Analysis

Introduction

Citizenship education is increasingly contested worldwide in educational policy. During a time of dramatic societal and political transformation, the demand for results on schools' civic capacities has intensified. The significance of this question is all the more pronounced in Pakistan. Younger generation, more complex layers of our democratic history and a strong tradition of 'transmission pedagogy' in our education system leads to a set of alternative expectations on the role of education that differ significantly from what takes place in classrooms (Darling-Hammond, 2006). One viable solution to this need is PBL (Hmelo-Silver & Barrows, 2006), an established constructivist strategy for developing critical thinking and civic competence (Hmelo-Silver, 2004). Pre-service teachers' conceptions of PBL as a citizenship education approach form the central focus of this paper, and their conceptions will

be explored regarding the conditions for meaningful educational reform in Pakistan.

Previous studies have demonstrated that teachers' pedagogical beliefs are important lenses that lie between the intentions of educational reforms and classroom practices (Pajares, 1992). Pre-service teachers carry a set of beliefs (cognitive frames) that they bring with them when they enter teacher preparation programmes, and these beliefs shape their mediation, modification, or rejection of new pedagogies. In public elementary schools in Pakistan, traditional teacher-centred pedagogies are still in practice, and pre-service teachers are challenged to "understand" and "adopt" constructivist practices while learning to teach and teaching in contexts where such practices were rarely modelled. This gap between pedagogical preparation and institutional reality remains underexplored in Pakistani literature on teacher education, especially regarding teacher education for citizenship at the elementary level.

Previous research on PBL in Pakistan is mainly related to medical education and Higher Education. Little research is available on PBL practice at the primary level (Hmelo-Silver & Barrows, 2006), and studies examining primary pre-service teachers' orientations towards PBL, especially to teach citizenship in Pakistan, are limited in educational research. While there is research in other countries in relation to pre-service teachers' conceptions of constructivist pedagogy, there are generally positive conceptions that coexist with reported barriers to enactment in the literature, but this pattern has not been studied in relation to PBL and citizenship education and the institutional context of Pakistan.

In this study, three research questions are answered. First, what conceptions do pre-service teachers have about PBL in regard to citizenship education at the elementary level? Second, what is the pre-service teachers' perception of the connection between PBL and the development of citizenship competencies of elementary students? Third, what are the structural and contextual issues that pre-service teachers reported that create problems in implementing PBL in Pakistani elementary schools? The paper moves on to a review of the literature, a detailed account of the methodology, findings in the Reflexive Thematic Analysis, discussion of findings in the context of previous scholarship, and a conclusion containing implications for theory and practice.

Literature Review

Constructivism and PBL in Teacher Education

Constructivism is a theory of knowledge and learning in which the learner builds knowledge by tackling problems instead of absorbing information (Barrows & Tamblyn, 1980). PBL applies this principle by engaging learners in experiences centred on ill-defined and situated in the real world, leading to collaborative inquiry, self-directed learning, and reflection. PBL first originated in medical education at McMaster University in the 1960s, but has since been used in other fields such as teacher education (Hmelo-Silver, 2004). Therefore, it is argued that if PBL is experienced as a learner, then pre-service teachers will be better prepared to engage with PBL as teachers since PBL fosters a felt understanding (Hmelo-Silver & Barrows, 2006).

This pattern is well established in the literature on pre-service teachers' conceptions of constructivist pedagogy. Accordingly, pre-service teachers are likely to profess constructivist beliefs but feel uncertain about enacting them. Similarly, this trend has been reported in other nations such as Turkey, Canada, and South Africa, where structural issues such as time pressure, class size, and curriculum requirements are identified as the major constraints. This situation is exacerbated by the fact that in Pakistan, the curriculum is examination-focused with no institutional steps to embed PBL practice, even in teacher preparation programmes. By analysing South Asian teacher education contexts, Westbrook et al. had determined that modular implementation of constructivist ideas, lacking sustained modelling and reflective

practice, produces surface-level change in the content of teachers' approaches to teaching (Westbrook et al., 2013).

Citizenship Education in Pakistan

Generally, citizenship education in Pakistan has focused on national identity, civic loyalty, and social harmony rather than participatory democracy, rights discourse, and critical thinking in citizenship (Dean, 2005). Frames citizenship mainly in terms of belonging and state loyalty, and agency, debate, and social critique receive little attention. Implications of this framing are relevant for teachers' conceptions of the purpose of citizenship education, as well as its content and methods (Muhammad & Brett, 2019, 2020; Rauf & Muhammad, 2026).

In an international context, Westheimer and Kahne's typology differentiates and describes three conceptions of what a good citizen should be: the personally responsible citizen, someone who acts with integrity and upholds social norms; the participatory citizen, someone involved in a vibrant community life; and the justice-oriented citizen, who analyses and questions the structures of inequality and injustice (Westheimer & Kahne, 2004). Evidence found in Pakistani and other South Asian contexts indicates the tendency of citizenship curricula and teacher preparation to foster the first type, to a lesser extent, the second type, and almost completely neglect the third - justice-oriented civic education (Durrani & Halai, 2018). The fact that pre-service teachers have conceptions of citizenship means it is important to understanding these conceptions is essential for designing civic learning experiences that are achievable in context when designing civic learning experiences.

PBL and Civic Development at the Elementary Level

The theoretical argument undergirding the use of PBL for civic development in elementary schools is based on the coherence and fit between constructivist learning theories and the skills needed to become a participating citizen. PBL nurtures collaborative problem-solving, perspective-taking, evidence-based decision-making, and engagement in communities, which citizenship education researchers identify as foundations for civic participation (Osler & Starkey, 2005). Elementary schooling introduces developmentally appropriate civic identity formation, well before formal political participation.

Based on empirical studies, PBL proves to be effective in terms of civic knowledge, attitudes, and civic engagement among elementary students in different countries (Levstik & Barton, 2022). However, studies on implementation repeatedly point to institutional requirements as the reasons for the failure of PBL in the classroom. The most commonly reported obstacles are time pressures, curriculum requirements, lack of resources, and lack of teacher preparation (ErtmerEtal2014). In low- and middle-income country settings, these barriers are exacerbated by class sizes, underfunding, and the pressure of examinations (Durrani & Halai, 2018). No literature has investigated the intersection of PBL, citizenship education, and elementary teacher preparation in Pakistan. This study addresses this gap in the Pakistani context.

Pedagogical Beliefs and Reform in Teacher Education in Pakistan

Teachers' beliefs about teaching and learning are one of the strongest factors underlying the choices made when implementing instructional practices (Pajares, 1992). Formed through years of prior schooling, these beliefs may resist change more than propositional knowledge gained in teacher education. For prospective teachers in Pakistan, where preparation for teaching is mainly transmission-based and teacher-centred, establishing constructivist beliefs

is a considerable challenge. However, long-term pedagogical change requires sustained, reflective, active teaching experiences (Hmelo-Silver et al., 2007). In the absence of such concerted involvement, whatever constructivist commitment is achieved remains fragile in the face of the challenges of the classroom.

The implications for PBL citizenship education are obvious. Even if pre-service teachers grasp PBL in theory, they are not given an opportunity to have regular practical experience with PBL as it is used in civic education. Without regular PBL practice in civic education contexts, they develop conceptual familiarity but not practical confidence. Information on the level and nature of this conceptual readiness, along with the structural conditions pre-service teachers expect, is needed if teacher education reforms are to bring about lasting change.

Methodology

Research Design

This study used Reflexive Thematic Analysis methodology (Braun & Clarke, 2022). Reflexive TA was chosen because the research questions were related to the meaning-making of a group and not to the measurement of outcomes or testing hypotheses. The analysis was not aimed at a preconceived coding structure, refraining from such imposition and freely utilising an inductive/deductive approach, which was realised as the flexibility of the theoretical approach of reflexive TA suggested. It is suggested that the analysis moved flexibly between inductive and deductive approaches, avoiding a predetermined coding structure. They are based on “Big Q” qualitative values such as the researcher being an active participant in the construction of knowledge, themes being constructed through interpretation rather than “discovering” them from the data, and the subjectivity of research is not a problem to be controlled but a resource (Braun & Clarke, 2022).

Philosophical Paradigm

This study was based on the constructivist-interpretivist paradigm. The study takes a relativist ontological stance that pre-service teachers’ conceptions are not absolute truths but socially and institutionally produced products created by particular educational experiences in a particular cultural context. The study followed a contextualist epistemology; that is, meaning is co-constructed between researcher and participant, and knowledge is perspectival and situated. The approach to language was representational in that the participants’ descriptions were considered as expressions of their understandings, but also that language itself constructs what can be said. The analytic approach used was experiential, focusing on how participants made sense of what they knew about PBL and citizenship education.

Analytic Approach

The analysis was primarily inductive; codes and themes were developed from participants’ accounts rather than being imposed a priori. The interpretive commentary during theme development, however, was guided by the conceptual framework on the following: constructivist pedagogy, citizenship typology theory, and literature on education reform in South Asia. The meaning focus was not only semantic, that is, the attention was paid to what the participants actually said, but also latent, that is, there was an interest in the assumptions, values, and conceptual orientations implicit in their accounts.

Participants and Sampling

The sampling of the participants in the study was carried out using a purposive criterion sampling method (Patton, 2015). The inclusion criteria were that participants had to have completed at least one teaching practicum during their education programme, have been specifically trained in PBL and citizenship education as part of their educational course, and be a BS Education student in the final semester from a public university in Pakistan. By ensuring that participants had enough theoretical and practical knowledge to engage with the research questions (Creswell & Poth, 2023), the following selection criteria were used: The number of participants was ten in total, all female, all in the last semester of the 4th year BS Education course. The participants were in the process of subject preparation in their respective disciplines of English, Pakistan Studies, and citizenship education for elementary teaching. However, instead of saturation as a measure of sample size, the study used the concept of information power — a small, purposively drawn sample with contextual knowledge of the phenomenon under study may have high information power, and thus high enough information power to be analytically meaningful without the need for an information-rich large one (Malterud et al., 2016). The participants are labelled as Participant 01-10 throughout the text to ensure anonymity.

Data Collection

Semi-structured individual interviews were used to generate the data. Collaboratively, the research team developed an interview guide based on the conceptual framework of the study with input from the supervisor. The guide included open-ended questions about participants' knowledge of PBL, their notions about what the citizenship competencies should be in elementary school, their perceptions about PBL's potential for civic development, and their predicted barriers to implementation. Interviews were conducted on the university campus with a time range of 35 to 50 minutes. The contents of all interviews were audio-recorded and transcribed word for word. The participants revised/checked the accuracy of the transcripts.

Data Analysis Procedures

The six steps of reflexive TA (Braun & Clarke, 2022) were followed to analyse the process. During Phase 1, the research team read all the transcripts several times, and initial impressions and general observations that came to light throughout all the data. Phase 2 involved systematic coding of the entire dataset, where the codes were yielded from the participants' account inferences. In Phase 3, codes were clustered together by recognising patterns of common meaning centred around a common organising concept to form 'candidate themes'. In Phase 4, themes were examined based on the entire dataset to analyse and evaluate how coherent, distinct, and congruent they were with the whole data. During Phase 5, themes were iteratively refined and defined, and themes were given names that clearly encapsulated their overarching organising concept. Theme names were changed several times over to ensure that the name sufficiently and specifically captured the overarching organising concept rather than labelling the theme. In Phase 6, the overall analytic narrative was written, encompassing the interpretive commentary, participants' quotes, and links to the research questions and conceptual framework.

Use of CAQDAS Software

In this study, no software of CAQDAS was used. Coding and theme development were performed manually, using print copies of the transcripts and colour-coded annotation. Such

an approach was found to be appropriate due to the small number of participants and due to the fact that the researchers were committed to analysis being closely tied to the data. Software could only have been an organising function; the analytical work was created by the people involved in the research and their engagement and interpretation of the data.

Researcher Reflexivity

The research team shared the essential elements of the participants' context. Participants and the researchers were BS Education students from a public university in Pakistan who had already completed a teaching practicum and were about to enter the same environment in which they were studying. This shared position allowed interpretive access to participants' accounts in a way that an outside researcher would not have been able to. There were two occasions on which active reflexive management was needed. First, when typical conceptions of citizenship were described, participants tended to consider accounts in relation to a justice-oriented concept of citizenship, and the lack of a rights discourse was viewed as an oversight; this was bracketed to understand the developmental and contextually appropriate civic orientations into which participants' accounts fell. Second, an initial inclination to criticise the institution (in terms of analysis) was found when the participants talked about their personal experiences of rigid curriculum structures; the researchers' institutional experience was not used for analysis, which made for a more balanced critique based on the evidence given by the participants. This practice was reflexive, and a view held throughout (Braun & Clarke, 2022) was that themes are constructed, not gleaned.

Trustworthiness and Quality

The quality of reflexive TA is assessed using four criteria: conceptual coherence, analytic depth, reflexive transparency, and evidential grounding (Braun & Clarke, 2022). In this study, Conceptual coherence was maintained across research questions, philosophical paradigm, and interpretive analysis. Analytic depth was shown by the process of descriptive codes and then to interpretive themes that were coded around central organising concepts. Reflexive transparency was achieved, including reflexive journaling processes which occurred throughout the research and in analysing it, as well as explicit researchers' positioning on methodology and analysis. The use of participant accounts was systematic, with evidential grounding in the analytic narrative.

Ethical Considerations

The institution granted approval before data collection. Written informed consent was obtained from all participants before the interviews. It was made clear to the participants that they could drop out at any time without penalty. The transcripts were anonymised and stored on an encrypted institutional storage drive. Participants' names, institutional identifiers, or identifying data were not included in the data or analysis. The research team worked hard to minimise the potential harm or emotional discomfort to the participants from the questions used in the interviews.

Findings

Reading and analysis of ten semi-structured interviews resulted in four themes: (1) PBL is Active Knowledge Construction; (2) Citizenship is a Values-Based Action; (3) PBL is a Way to be a Citizen, Critical Thinking; and (4) The System that Does Not Accompany the Method.

These themes are not presented in the order in which they are independent but rather in the order in which one path might follow through the analysis.

Theme 1: PBL as Active Knowledge Construction

1a. Learning Through Problems, Not Transmission.

The evidence suggests that all ten participants shared a coherent, constructivist view of PBL as a method whereby students learn while working on problems, and not the teacher giving problems. This conception was created in opposition to the predominant transmission pedagogy that had been encountered by the participants in their schooling. The difference was explained by Participant 08:

In the usual model, the teacher gave a lecture and the student analyse and learn. In the model PBL, the student actively ask questions to the teacher, analyse, cooperated among the students, looked for answers, and gained knowledge. It can be seen that in the traditional model, the students learned by taking information from others, while in the PBL model, students learn by getting information from themselves.

This framing positioned PBL as an alternative pedagogical challenge.

Participant 01 elaborated on the procedural nature of PBL:

PBL is an approach to learning that is active learning where the teacher plays a role as a guide, the teachers provide the problems, and students together investigate the problems or find answers... we can develop our reasoning, communication, and cooperation... PBL is an active learning approach.

Focusing on investigation, debate, and suggestion were indicators that participants had an understanding of PBL that was generative and not receptive; it was a process of knowledge making and not receiving.

The shared understanding among participants was summarised by Participant 09: "I would explain that it is a student learning approach that would involve helping students to learn by addressing real-life problems." High agreement emerged with real world problem orientation and teacher-as-guide positioning in all ten accounts, suggesting that these aspects of the constructivist model were internalised as a consistent perspective of the participants.

1b. Variable Depth Beneath Shared Orientation

Participants had varying levels of understanding, given that they shared a constructivist approach. Participant 04 characterised PBL as posing general questions in class, and the boundary between PBL and an interactive lecture was not always clear. Participant 05 presented PBL mostly in relation to behavioural management and not on epistemological principles. The variations suggest that while there is conceptual conformance with constructivism despite some practices in the sample, it is not uniformly deep across the sample, and that the depth of understanding is related to the quality and duration of practicum experiences.

Theme 2: Citizenship as a Values-Based, Action-Oriented Practice

2a. Cooperation, Responsibility, and Respect as Civic Foundations

The building of civic dispositions (cooperation, responsibility, respect, empathy, and social

awareness) was a central theme of the concept of elementary citizenship education for all participants. The following competencies emerged from all ten interviews as prime outcomes of citizenship education. Participant 03 had a more integrated understanding: “Civic skills are important to younger students as they are the foundations of being an accountable citizen in the future; there are three components of civic skills they need to learn: how to work in groups, how to respect other people’s opinions/suggestions; and how to be accountable for their actions. Participant 01 emphasised the relational nature of citizenship: “In my view, respect, honour, cooperation, and responsibility are key competencies, but citizens need to understand what they owe as well as their rights, and stressed the importance of tolerance and empathy in a diverse community.”

That this framing persisted across all of the data indicates a civic education model has been internalised by the participants and is based on character and moral relations among people, not political literacy as such. Of particular note was the general lack of participants’ awareness of democratic processes, institutions, and civic rights when describing what they felt they would like children to learn in elementary school.

2b. Citizenship as Lived, Not Studied

Several participants made a clear distinction between citizenship as a subject of teaching (and learning) and citizenship as a practice of enacting. According to Participant 08,

PBL turns... citizenship education from a book to a real one..... When children solve a real problem, they learn about civic responsibility, justice, equality, etc. concretely..... For example, if a child tackles a cleanliness issue in school, this relation remains with him afterwards. (Participant 08)

This was confirmed by participant ten as:

Need to educate students not only for the topics of the course, but also for the issues that they can join both as a individual citizen and as a responsible citizen as well, so that they learn not just academically but beyond the scope of the course. (Participant 10)

This instance of a “lived-practice” framing reoccurs throughout, suggesting a similar belief that a textbook-based orientation to citizenship education does not adequately prepare young learners civically.

Theme 3: PBL as a Pathway to Civic Agency and Critical Thinking

3a. Critical Thinking as Civic Habit

The participants showed an extremely complex understanding of the development of the ability to reflect critically on civic issues in a way that can be sustained as a habit through PBL, as follows: Participant 08 spoke about their cognitive process:

Children who develop a problem consider different perspectives to gain an understanding of people, why the problems exist, and what they think might help solve the problem. This helps to instil critical thinking habits. They begin to see social and political problems in this way and hold views based on thoughts rather than feelings. (Participant 08)

Participant 03 did this by using an example of a real civic context:

PBL supports critical thinking about the problems of developed cities. Children understand the

answer to a problem by focusing on the parts of a problem, considering options, and determining the best solution. This whole procedure encourages an attitude of inquiry, questioning, and evidence-based decision-making. For example, if they notice at school that there is a problem with water, they can find out where it is coming from, what they can do to address it, and what is a realistic solution. (Participant 03)

Water scarcity and school cleanliness were identified as common parameters for PBL problems that were experienced in several interviews. They are analytically important: participants expressed greater confidence in PBL's civic applicability for local, tangible issues than for politically complex ones.

3b. PBL and the Formation of Civic Identity

Participants articulated the most analytically rich ideas around the concept of PBL as an opportunity for forming civic identity, not only civic skills. Participant 01 stated this directly:

PBL not only impart knowledge but also define an action. Students are actively involved and feel valued when they come up with ideas to take care of the school, such as cleaning up around the school. They are not just in criticising, rather they are pushing for the solution, creating a leadership role, and a sense of duty. This will help them play effective roles in society later in life. (Participant 01)

Participant 08 furthered this argument about identity formation:

“By putting this idea of identity formation in PBL, children realise that they can improve society. When they search for a solution and evaluate it, they understand that they can make a change, and this understanding makes children more enthusiastic and more interested in making a difference and being responsible contributors, people who look forward. (Participant 08)

Participant 02 attributed civic involvement to fostering a spirit of citizenship in young students: “Civic involvement is a natural outgrowth of problem-solving learning; students learn to be involved with their community and take their responsibilities up.”

In sum, these accounts all evidenced a conception of PBL as one that produces a civic self—an identity that places students as active partners in civic life rather than simply being the objects of civic learning.

Theme 4: The System That Refuses the Method

4a. Time as the Structural Regulator

Time was the emergent barrier to implementing PBL, as stated by all ten participants. The school environment, with its short class periods, requirement to complete the curriculum, and demanding, loaded curriculum, was consistently reported as an aspect of the environment that renders PBL's open-ended and inquiry-based processes impractical. Participant 08 cited time constraints directly: “The PBLs take more time than the traditional method and must be completed in a limited time.” Participant 07 articulated the structural dimension clearly: “Time management problems related to short class time (45 minutes) and preparation, which takes time, in addition to mixed student attitude and extensive class sizes, make planning problem-based activities difficult.” These accounts share a common awareness that the formal structure of Pakistani elementary education is not conducive to the kind of process of sustained enquiry

called for in PBL. Participants did not view this as a reason to abandon PBL, but rather as a structural issue to be resolved as an institutional challenge.

4b. Resource Scarcity and Institutional Underfunding

The majority of participants called out a lack of physical and digital resources, contributing to the challenges. Participant 09 identified short class periods, lack of teaching materials such as Wi-Fi and adequate classroom space, and large class sizes. Participant 01 described the scope of this concern: “I would need a flexible timetable and administrative support to implement PBL effectively, etc. Workshops for teachers and support from the parents are important so that students can engage in this discussion at home.” The availability of resources is, therefore, not just about classroom resources but rather integration into the institutional culture, administrative flexibility, and community engagement, suggesting that it is a systemic, not top-down or personal, issue.

4c. Student Readiness and the Passive Classroom Legacy

Some of the participants cited the lack of preparedness and that not all groups were engaged in the activities due to students’ experiences of passive learning. Participant 04 explained this interpretively:

Some children are very active when I pose a problem to them; they try to solve the problem efficiently. There are certain children for whom I find it quite challenging. Due to their passivity, they lack understanding of how to think, how to accomplish this, and how to achieve that. Sometimes, I give them a problem, and they do not understand. (Participant 04)

Participant ten mentioned a lack of critical thinking skills as another issue: She noted that students lacked critical thinking skills, which affected the group. These concerns suggest that successful PBL was perceived as requiring students’ involvement to a specific degree, which could not be taken for granted in classrooms where teacher-centred teaching had been the main method.

Discussion

Interpretation of Findings

This study finds a systematic gap between epistemological readiness and institutional enablement, which forms the central finding of this study. The theories of PBL held by the participants are coherent and, as theories for citizenship education, are student-centred constructivist. They view PBL as ‘active knowledge construction’ and as an approach to delivering citizenship that is values-based and practice-oriented, and they have a clear statement of the rationale for using PBL to develop civic agency and critical thinking. What is missing from participants’ perspective is their faith that the institutions into which they are entering would create space sufficient to realise this vision. This is not coincidental; it lies at the core of the pedagogical challenges in PBL-based citizenship education reform in Pakistan.

In the case of the cross-theme analysis, an analytically ordered sequence was revealed. Theme 1 builds an epistemological base to see PBL as constructivist and student-centred. Theme 2 sets the normative objective that, through practice, citizenship education should nurture citizens with active civic values. Theme 3: PBL makes pedagogy about an outcome – civic agency—and starts with community problems. The problem of structure is introduced in Theme 4 – the participants will enter the system they are in at school, which does not afford the necessary

conditions for PBL. The themes together suggest that there is an institutional rather than an epistemic block to reform.

Connection to Existing Literature

This positive orientation towards constructivist PBL echoes the international literature on teachers' beliefs and their methods of method adoption. Ertmer and colleagues cite first-order barriers as external and structural, such as time, resource constraints, and curricular requirements, and second-order barriers as internal and dispositional, reflecting beliefs and confidence. The findings indicate that second-order barriers do not apply to these participants: The beliefs of the participants are consistent with PBL. First-order barriers dominate. This distinction matters for reform planning and for designing targeted interventions.

Theme 2 is effectively analysed from the perspective of citizenship as defined in the typology of citizenship of Westheimer and Kahne (2004). The participants' emphasis on cooperation, responsibility, and respect places them firmly within the personally responsible and participatory citizenship types. Few participants gave accounts of civic education focused on and oriented by justice, which requires critical analysis of systemic inequalities. This reflects how the Pakistani citizenship curriculum has been historically framed, and in this regard, pre-service teachers work within the civic value horizons of their own educational experience. Advancing justice-oriented citizenship education requires both pedagogical innovation and curriculum reform. On the other hand, in the case of Pakistan, its education reformists Durrani and Halai (2018) have claimed that it will be unproductive to expect systemic change to occur merely through the efforts of individual teachers who want to teach in active ways. This study does so at the level of pre-service teachers' anticipatory accounts.

Osler and Starkey's (2005) work on the significance of global citizenship education further emphasises the need to build participatory civic identity via an extended period of practice, not necessarily knowledge dissemination. The participants' framing of PBL as identity construction supports this argument and illustrates that these pre-service teachers have a theory of civic development beyond what is formally mandated by the current curriculum. Civic themes from local communities are participants' preferred starting point for PBL. This aligns with Levstik and Barton's (2022) evidence that locally grounded inquiry is developmentally appropriate in elementary civic education.

Implications

Theoretically, this study contributes to the literature related to teacher beliefs and constructivist pedagogy by providing evidence that, in the Pakistani context, it is not beliefs that constrain reform, but the institutional conditions pre-service teachers will enter. This finding challenges reform narratives that identify teacher preparation as the sole issue and means that the structural and systemic dimensions of the problem must be considered as well.

The study offers two practical recommendations. First, sustained, supervised PBL practicum experiences in citizenship education contexts within BS Education programmes in Pakistan, which may enable opportunities to engage in deep and reflective practices. Second, curriculum authorities need to revise elementary citizenship curricula and school timetables to set aside time for PBL activities, thus eliminating the contradictory threats of tension between constructivist teaching and curriculum management based on examinations. This study demonstrates that reflexive TA is productive for analysing

pedagogical beliefs.

Reflexive Considerations

As final-year BS Education students, the research team shared the participants' institutional position, which provided interpretive access but also created risk of over-identification. There were moments when participants' conceptions needed to be interpreted against a justice-oriented citizenship ideal and when the institutional structures were initially analysed through the researchers' own institutional experience. This creates space to show the conditions under which the themes are built by acknowledging these moments. It is likely that another researcher, one not so involved with teacher education in Pakistan or from a later stage of research, might have highlighted other interpretive aspects. The themes included here represent a single, rigorous, contextually sensitive interpretation of the data.

Limitations

The data were collected from a single institution, and the findings reflect that specific institutional context. All participants were female, reflecting the institutional composition of the programme; male pre-service teachers of other institutional setups may have different conceptions of programmes. Data were produced using an interview, a technique that is affected by the social desirability motive. Further research is needed to track whether these conceptions persist or shift in the early years of practice.

Future Research Directions

Based on the results of this study, there are three lines of research. A longitudinal study tracking PBL enactment by BS Education graduates during the first 3 years of practice to see if PBL constructivist conceptions still hold true and to examine whether constructivist conceptions persist and what supports sustain pedagogical alignment. A mixed-methods study of actual PBL implementation in a real classroom of elementary citizenship education in Pakistan could be considered as a mixed-methods study to substantiate and provide support based on evidence of students' civic learning outcomes, alongside pre-service beliefs and enacted practice. A comparative study of pre-service teachers' conceptions across different provincial and institutional contexts in Pakistan would help to understand the level of generalisation of the findings of this study and would help in revealing cultural factors that support or hinder teaching citizenship in a constructivist manner.

Conclusion

In this study, the researchers sought to analyse the conceptions about PBL held by ten final-year BS Education students of a public university in Pakistan regarding citizenship education at the elementary level. Four themes were developed using Reflexive Thematic Analysis: Conceptualising PBL as active knowledge construction, conceptualising citizenship as a values-based, action-oriented practice, conceptualising PBL as a pathway to civic agency and critical thinking, and the systemic conditions that work against enactment. The cross-theme synthesis revealed a key finding from the current study: Pre-service teachers hold epistemologically sound constructivist views, but anticipate institutional conditions that will prevent enactment. It is not what teachers believe that stands in the way of reform; it is the system that they enter.

As a result, this discovery has significant implications for the way in which citizenship

education reform in Pakistan is conceived and continued forward. Efforts that address only pre-service training, without reforming the structure of elementary education, will not produce lasting change. All of the above combine to be a system that is not compliant with the pedagogy it claims to support: curriculum inflexibility, lack of resources, insufficient class time, too many students per class, and lack of professional development infrastructure. These structural conditions must be addressed through curriculum reform, resource investment, and sustained professional development, so that constructivist conceptions survive classroom realities.

Further research should examine how graduates' beliefs evolve alongside institutional conditions in early classroom practice. It should examine whether structured curriculum spaces for PBL-based citizenship teaching support participants' confidence and enactment. It should also listen to the voice of elementary students in Pakistani classrooms and explore the nature of civic learning that is fostered when attempting to engage in constructivist teaching in a resource-limited context. For this study, the pre-service teachers demonstrate that an intellectual and values-based foundation for PBL-based citizenship education exists in Pakistan. What still needs to be developed is an institutional setting in which it can be realised.

References

- Barrows, H. S., & Tamblyn, R. M. (1980). *Problem-based learning: An approach to medical education*. Springer Publishing Company.
- Braun, V., & Clarke, V. (2022). *Thematic analysis: A practical guide*. Sage Publications.
- Creswell, J. W., & Poth, C. N. (2023). *Qualitative inquiry and research design: Choosing among five approaches* (4 ed.). Sage Publications.
- Darling-Hammond, L. (2006). Constructing 21st-century teacher education. *Journal of Teacher Education*, 57(3), 300–314. <https://doi.org/10.1177/0022487105285962>
- Dean, B. L. (2005). Citizenship education in pakistani schools: Problems and possibilities. *International Journal of Citizenship and Teacher Education*, 1(2), 35–55.
- Durrani, N., & Halai, A. (2018). Dynamics of gender justice, conflict and social cohesion: Analysing educational reforms in pakistan. *International Journal of Educational Development*, 61, 27–39. <https://doi.org/10.1016/j.ijedudev.2017.11.010>
- Hmelo-Silver, C. E. (2004). Problem-based learning: What and how do students learn? *Educational Psychology Review*, 16(3), 235–266. <https://doi.org/10.1023/B:EDPR.0000034022.16470.f3>
- Hmelo-Silver, C. E., & Barrows, H. S. (2006). Goals and strategies of a problem-based learning facilitator. *Interdisciplinary Journal of Problem-Based Learning*, 1(1), 21–39. <https://doi.org/10.7771/1541-5015.1004>
- Hmelo-Silver, C. E., Duncan, R. G., & Chinn, C. A. (2007). Scaffolding and achievement in problem-based and inquiry learning: A response to Kirschner, Sweller, and Clark (2006). *Educational Psychologist*, 42(2), 99–107. <https://doi.org/10.1080/00461520701263368>
- Levstik, L. S., & Barton, K. C. (2022). *Doing history: Investigating with children in elementary*

and middle schools. Routledge. <https://doi.org/10.4324/9781003179658>

Malterud, K., Siersma, V. D., & Guassora, A. D. (2016). Sample size in qualitative interview studies: Guided by information power. *Qualitative Health Research*, 26(13), 1753–1760. <https://doi.org/10.1177/1049732315617444>

Muhammad, Y., & Brett, P. (2019). Addressing social justice and cultural identity in Pakistani education: A qualitative content analysis of curriculum policy. In *Education, Ethnicity and Equity in the Multilingual Asian Context* (pp. 235–253). Springer.

Muhammad, Y., & Brett, P. (2020). Infusing cultural diversity into Pakistan studies textbooks: An analysis of textbooks and teachers' perspectives. In M. S. Pervez (Ed.), *Radicalization in Pakistan: A Critical Perspective* (pp. 61–76). Routledge.

Osler, A., & Starkey, H. (2005). *Changing citizenship: Democracy and inclusion in education*. Open University Press.

Pajares, M. F. (1992). Teachers' beliefs and educational research: Cleaning up a messy construct. *Review of Educational Research*, 62(3), 307–332. <https://doi.org/10.3102/00346543062003307>

Patton, M. Q. (2015). *Qualitative research and evaluation methods: Integrating theory and practice* (4th ed.). Sage Publications.

Rauf, A., & Muhammad, Y. (2026). Representation of cultural diversity in history textbooks in elite schools of Pakistan. In *Decoding Multicultural Education in Asia: Prospects and Challenges for School Development* (pp. 153–167). Springer.

Westbrook, J., Durrani, N., Brown, R., Orr, D., Pryor, J., Boddy, J., & Salvi, F. (2013). Pedagogy, curriculum, teaching practices and teacher education in developing countries. <https://eppi.ioe.ac.uk/cms/Portals/0/PDF%20reviews%20and%20summaries/Pedagogy%202013%20Westbrook%20report.pdf>

Westheimer, J., & Kahne, J. (2004). What kind of citizen? The politics of educating for democracy. *American Educational Research Journal*, 41(2), 237–269. <https://doi.org/10.3102/00028312041002237>