



Teacher Agency and Curriculum Reform in Nepalese Mathematics Education: Insights from Currere Narratives

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Abstract

This narrative inquiry examines the subjective, real-life experiences of four secondary mathematics teachers, each possessing over two decades of practice in Nepal, through the conceptual lens of William Pinar's Currere. Curriculum planning and student-centric reforms in Nepal are structurally centralized around the Tylerian model, which marginalizes teachers as curriculum implementers rather than active developers. This study addresses the critical research gap by using autobiographical reflection to understand how veteran educators interpret and negotiate these centralized reforms. The analysis, structured through the phases of Currere, reveals that the long-practiced reform process has indeed stripped teachers of their role as curriculum researchers. However, the teachers' narratives demonstrate that the challenges they face are intricately intermingled: their emerging professional identities are forged through active struggle against the system's constraints. They simultaneously navigate profound socioeconomic disparities that undermine student achievement, confront the resultant pedagogical crisis in compulsory math education, and resist the chronic neglect or interference of politics in school governance. These four issues are revealed not as isolated problems but as linked effects of the rigid, objective-based curriculum model. Since this dominant Tylerian approach compromises teacher empowerment, a process-oriented framework like Currere is recommended to foster greater teacher agency and meaningful educational reform in the Nepalese context.

Keywords: Currere, Mathematics curriculum reform, Nepalese education, Professional development, Teacher agency

Introduction

Building on this conceptual backdrop, the following sections provide a contextual overview of curriculum development models, identify gaps in existing research on teachers' lived experiences in Nepal, and outline the specific objectives guiding this study.



Context

Tyler (1949) is regarded as a milestone in the practice, debate, and proposal of alternative models in the field of curriculum. He proposed centrally designing and periodically revising the model. Then Taba (1962) proposed another model of developing curriculum- i.e., piloting by teachers and planning at the center (national or provincial, or district level). More than the Taba, Walker (1971) proposed a model of curriculum development that addresses the concerns of all the stakeholders and designs curriculum in the localization. His model has three distinct phases: platform, deliberation, and design. Nicholls and Nicholls (1972) also stressed that the curriculum must be situational and contextual, as well as stressed the central role of curriculum development. Again, Stenhouse (1975) stresses that the curriculum must not be any pre-determined plan to implement, but an emerging interaction, learning, and development of teachers and students together, where teachers are continuous researchers and constructors. At the beginning of 1980, some theorists (e.g., Pinar, Huebner) stressed on unfolding of existence, humanity, and spirituality through curriculum. They stressed ethically, morally, and existentially, accountable individuals along with their competency in a specific field. For them, curriculum (a way of individual unfoldment) is an ongoing process through regression, progression, analysis, and synthesis. For them, curriculum is a lived experience deeply shaped by their identities, beliefs, and practices. As many students are engaged, their teachers and other stakeholders to engage in parallel.

While arranging curriculum development models in a continuum, Tyler and Pinar stand on opposite poles. One assumes- controlled development of the child by expert-made objectives, and another, natural unfoldment of existence as a result of co-constriction. Pinar (2011) suggests that, like students, teachers are also subjects of continuous development; engaging in the study of their *currere* allows them to deepen their authenticity, autonomy, and moral imagination as educators in a world that often overlooks their humanity (pp.1–18). This emphasis on teachers' self-development aligns with a broader consensus by the end of the 20th century that the quality of education is fundamentally dependent on the quality of the teacher (OECD, 2005; Barber & Mourshed, 2007). A professionally developed teacher is not only skilled in subject knowledge and pedagogy but also advocates for social justice, equitable learning opportunities, and inclusive classroom practices (Darling-Hammond, 2006; Fullan & Hargreaves, 2012). Such teachers critically engage with curriculum design, striving for

contextually relevant, economically productive, and socially meaningful learning experiences that empower students and communities (OECD, 2019; Pinar, 2012). They invest in education as a transformative process, linking ethical responsibility, teacher agency, and reflective practice to foster both academic achievement and holistic student development (Barber & Mourshed, 2007; Hargreaves & Shirley, 2009). Consequently, research on teacher development often examines teachers' awareness, engagement, and experiences in promoting student learning and growth through curriculum. To capture these dimensions most authentically, exploring teachers' autobiographies offers a powerful approach, providing insights into how their professional and personal experiences shape their pedagogical practices and educational values.

Mathematics is widely regarded as a challenging subject in Nepalese schools, consistently recording the highest number of failures among all subjects. In the SEE 2080 (2023/24), over 177,000 students failed mathematics, more than any other subject (National Examinations Board [NEB], 2024). Similarly, national assessments indicate that fewer than one-third of grade 8 students meet expected competency levels in mathematics, highlighting persistent difficulties in learning the subject (Education Review Office [ERO], 2019). Therefore, veteran mathematics teachers were taken for a narrative study to examine their professional development from the frame of Pinar's "currere" (2019, p. 23).

Research Gap

There are a few studies on effectiveness, content alignment, and pedagogical implications in school curriculum in Nepal by the Education Review Office, National Examination Board reviews, Scholars under the Faculty of Education, and a few have delved into the subjective, autobiographical experiences of teachers as curriculum actors. There is a notable absence of research that: (a) Applies *Currere* as a theoretical or methodological framework in the Nepalese context; (b) navigates teachers' lived experiences over different batches of students and different stages of curriculum reforms; (c) Explores how many-years-experience teachers make sense of curriculum changes in relation to their own biographies, values, and classroom practices; (d) Connects personal narratives with national curriculum policies and shifts. Although some qualitative studies have discussed teachers' attitudes or challenges in implementing curriculum, but rarely address teachers' temporal and existential dimensions on curriculum experience as proposed by Huebner (1999).

This study aims to bridge this gap by conducting in-depth narrative interviews with four senior secondary-level teachers (with 20+ years of experience). Existing literature shows that while curriculum studies are growing in Nepal, few studies have delved into the subjective, autobiographical experiences of teachers as curriculum actors. This research specifically navigates teachers' lived experiences across different batches of students and various stages of curriculum reforms."

Objectives and Rationale

A study was carried out to examine how teachers in Nepal enact and interpret curriculum development models through their professional journeys and reflective engagement using Pinar's Currere framework. Specific objectives of the study were (1) to document teachers' professional trajectories and autobiographical experiences in school education; (2) to analyze how teachers' reflections and ethical commitments shape curriculum enactment in diverse classroom contexts; (3) to explore the interconnection between teacher agency, reflective praxis, and curriculum meaning-making; and (4) to generate insights into curriculum development models grounded in teachers' lived experiences, with implications for teacher education and policy in Nepal.

Despite decades of curriculum reform in Nepal, the dominant Tylerian model continues to restrict teachers' roles to mere implementers, overlooking their crucial insights and lived experiences. Consequently, there is a critical research gap in understanding how veteran teachers interpret and make sense of these centralized reforms in relation to their own professional biographies and classroom struggles. This narrative inquiry, framed by Pinar's concept of Currere, directly addresses this void, aiming to foster a greater recognition of teacher agency within the country's mathematics education system.

Review of Literature

The literature review is organized into four sections, moving from foundational curriculum theories to contemporary context-specific issues in Nepalese mathematics education. This structure by covering historical perspectives, teacher-centered reconceptualist approaches, localization and postcolonial contexts, and post-COVID challenges, frames the study's focus on teachers' Currere and justifies the use of narrative inquiry to explore their reflective experience.

To explore how teachers experience and interpret the school-level mathematics curriculum, it is essential to first understand the historical and classical foundations of

curriculum theory, which shape the frameworks and expectations within which teachers have navigated their professional journeys.

Historical and Classical Perspectives on Curriculum

Education, a pathway for personal growth and social reform, is systematized through curriculum, which encompasses decisions about why, what, and how to teach, while also raising questions of who makes these decisions. The scientific study of curriculum began with Bobbitt (1918), who argued that curriculum functions as an efficient system to produce desired human resources from children, akin to a potter shaping clay into a final form. Tyler (1949) elaborated curriculum through four principles, emphasizing a scientific approach to objective formulation based on learners' interests, societal demands, and subject worth. He proposed that centrally appointed experts should guide the selection and organization of learning experiences, asserting that "educational objectives become the criteria by which materials are selected, content is outlined, instructional procedures are developed, and tests and examinations are prepared" (p. 4).

Taba (1962) introduced an inductive, teacher-inclusive approach, emphasizing meaningful learning, critical thinking, and democratic attitudes. She argued that quality begins with a coherent curriculum responsive to learners' developmental needs and highlighted the importance of continuous assessment. Though she emphasized the role of teachers in unit development, Taba did not foreground teacher empowerment, ownership, or accountability as central to curriculum quality. Walker (1971) expanded this perspective through a naturalistic model, where curriculum decisions emerge in situ through stakeholder deliberation, positioning teachers as co-creators rather than mere implementers (Walker, 1971, pp. 57–60). Nicholls and Nicholls (1972) reinforced the importance of context-relevance and learner-centered integration, allowing continuous adjustments at the classroom level, thus recognizing teachers' situational knowledge and contextual expertise (p. 34).

Stenhouse (1975) further transformed the conceptualization of curriculum as a dynamic, emergent process. Here, teachers continuously research and co-construct knowledge alongside students, shifting the focus from standardized objectives to individualized, creative learning experiences. This historical trajectory lays a foundation for understanding the evolution from centralized, objective-driven curriculum models to participatory, teacher-centered approaches.

Building on these classical foundations, reconceptualist and teacher-centered approaches highlight the evolving role of teachers as reflective practitioners and co-constructors of curriculum, offering a lens to examine teachers' autobiographical experiences and professional identities.

Curriculum Reconceptualization and Teacher-Centered Approaches

Emerging in the 1970s, the reconceptualist movement shifted curriculum focus from purely cognitive outcomes to the holistic development of learners. Freire (1971) emphasized contextual curriculum development and collaborative, dialogical pedagogy to foster critical consciousness. Apple (2000) challenged standardized testing that delegitimizes working-class knowledge, advocating for a curriculum that illuminates political, cultural, and economic forces shaping students' lives. Giroux (1992) proposed curriculum as a vehicle for social transformation, highlighting teachers' roles as moral and intellectual guides. Huebner (1967) called for curriculum as a poetic, existential act, while Noddings (2002) emphasized holistic care—nurturing students emotionally, morally, socially, and intellectually. Greene (1995) underscored the role of imagination and aesthetic sensibility in cultivating critical engagement with social realities.

Central to reconceptualist thought, Pinar's (1994, 2012) model of Currere offers a reflective, autobiographical method, comprising regressive, progressive, analytical, and syncretical stages. Currere positions both teachers and students as evolving subjects, integrating past experiences, present realities, and future possibilities into curriculum understanding. For teachers, Currere supports professional growth, identity formation, and reflective practice, highlighting the subjective, ethical, and contextual dimensions of teaching.

Teacher empowerment, central to contemporary curriculum discourse, involves professional autonomy, moral agency, and pedagogical ownership (Fullan & Hargreaves, 1992). Evidence shows that teachers engaged in decision-making are more likely to implement context-sensitive, reflective pedagogy that promotes deep learning (Priestley, Biesta, & Robinson, 2015). This perspective also aligns with democratic curriculum ideals, where authority and ownership at the school level foster relevant, localized, and ethically responsive pedagogy (Apple, 2004; Cornbleth, 1990; Pinar, 2012).

While reconceptualist theories emphasize teacher agency, postcolonial and localized perspectives ground these experiences in specific sociocultural and linguistic

contexts, allowing for a nuanced understanding of how teachers navigate mathematics curriculum realities in Nepali classrooms.

Localization, Contextualization, and Postcolonial Perspectives

In postcolonial and multilingual settings such as Nepal, curriculum relevance and ownership are strongly linked to localization and contextualization. Centralized curricula that fail to reflect local epistemologies, linguistic realities, or cultural knowledge risk alienating learners and reducing engagement (Carney & Bista, 2009). Context-sensitive curricula enhance pedagogical efficiency, enabling teachers to leverage local knowledge, cultural norms, and learners' everyday experiences (Bishop & Glynn, 1999; Shrestha & Pant, 2019).

Localized and context-based approaches are particularly effective when implemented through project-based and problem-based learning, fostering intrinsic motivation and meaningful learning (Thomas, 2000; Bell, 2010; Ladson-Billings, 1995). Without such adaptation, curricula may perpetuate inequalities and low learning outcomes (Ghimire, 2022). Teachers' involvement in contextualized curriculum design enables reflective, responsive pedagogy, bridging the gap between policy intentions and classroom realities. Furthermore, recent studies highlight the relevance of teacher agency in curriculum adaptation post-COVID-19, where digital pedagogical competencies, equity challenges, and context-driven solutions have become crucial for sustaining quality education (Rijal, 2023; Adhikari et al., 2022; Joshi et al., 2021).

Finally, contemporary challenges, including post-COVID digital transformations, illustrate how teachers' past experiences, contextual knowledge, and reflective practices converge to shape their professional identity, curricular engagement, and adaptive strategies in mathematics instruction.

Forced Digitalization, Teacher Identity, and Contemporary Challenges

The COVID-19 pandemic accelerated digitalization in Nepali schools, forcing mathematics teachers to rapidly acquire digital literacy and adopt online instructional platforms such as Zoom and Google Classroom (Adhikari et al., 2022; Joshi et al., 2021). While urban schools maintained continuity, rural schools faced significant equity gaps due to limited access to devices and connectivity (Basnet et al., 2021; Dawadi et al., 2020). Beyond digital adoption, these changes offer opportunities for pedagogical transformation: interactive tools like GeoGebra can shift teaching from rote learning to active problem-solving (Rana et al., 2020).

Sustaining this transformation requires curriculum-aligned, ICT-integrated professional development that addresses inequities, reinforces teacher agency, and strengthens reflective practice (Rijal, 2023). Teacher identity in mathematics education is increasingly shaped by their capacity to navigate digital, pedagogical, and curricular challenges simultaneously. Long-serving teachers, in particular, provide critical insights into curriculum implementation, integrating past experiences, contextual realities, and future innovations. These perspectives are essential for post-pandemic curriculum reforms and highlight the continuing need for teacher empowerment, local responsiveness, and professional ownership in mathematics education.

Research Methodology

In Nepal, the school-level mathematics curriculum is under hot debate- a difficult subject, students' failure, and now a shortage of math students in higher education in general and teacher education in particular. It has undergone several reforms over the decades. As a teacher educator, I used to talk about this issue with the teachers who attend it. I talked to over 20 math teachers. While writing this paper, I reviewed over 20 teachers and found four teachers relevant and significant. Narratives of four teachers (pseudonyms here) were purposefully selected. I met Sita and I studied together in Intermediate in Education, and Bachelor in Education; and Ramraj was my friend in MEd- we used to talk on education policy, curriculum, and math teaching occasionally. I met Ram as a professional friend, a math textbook author, a teacher trainer, and smart in documentation too. I met Hari as a faculty member in campus- he teaches economics for masters and math for school. These friends of mine hold diverse representations- Sita- a woman still feeling subjugated; Ram- a Dalit but confident teacher trainer; Ramraj- a head teacher of a public school with the credit of school improvement; and Hari- a founder principal/teacher as well as book author. It is allied with ethical commitment to representation and justice on the one hand, and exploration of diversity, communality, and difference underneath, on the other.

I collected their personal stories, career trajectories in mathematics education, and their reflections on curricular changes over time, not only through informal discussions but also from other sources- their co-teachers, family members, public works (reported by perceivers), etc. This inclusion further strengthens this epistemological approach by providing a multifaceted understanding of the curriculum's enactment across varied educational contexts and ethical aspects of knowledge, with the inclusion of social diversity. Their experiences of studying math in school for over 20 years of teaching

math in school have been taken to understand the phenomenon and highlight the issue. Pinpointing of the reality through the narrations of these teachers wouldn't be claimed as a single, objective truth, but as multiple, subjective, and socially constructed experiences.

Teachers' individual narratives and interpretations of the curriculum reflect how their lived realities are shaped by personal histories, beliefs, and social contexts. Knowledge is generated through the researcher's engagement with participants' meanings and perspectives. The aim is to understand 'why' teachers' autobiographical experiences give meaning (Pinar, 2019, p. 35) to the mathematics curriculum, its reform, and their role in it.

Narrative inquiry was the design that was employed here to understand teachers' experience regarding their role, identity, development, and empowerment in the curriculum that they have been implementing for many years (Pinar, 1994). By generating and analyzing the narratives of mathematics teachers, the study sought to understand how they made sense of curriculum reforms, professional challenges, and their evolving identity within the Nepalese educational system. Participants were familiar with me, and usually recognized me as a scholar, since they shared their curricular experiences with me, expecting that I would convert it to academic pressure on the government officials who oversee teachers. Thus generated information was analyzed with three stages- (1) Currere mapping- each teacher's narrative was organized with regressive/progressive/analytical/synthetical lenses; (2) thematic coding- identification of recurrent challenges, strategies, and shift in teaching-learning by guiding with "Thematic analysis is a method for identifying, analyzing, and reporting patterns (themes) within data" (Braun & Clarke, 2006, p. 79).; and (3) Critical reflection- analyze voice, silences, power in their narratives based on examining the meanings of themes in relation to power, context, positionality, and underlying ideologies (Brookfield, 2017).

These purposively selected four teachers provide rich, contrasting perspectives across socio-economic backgrounds, teaching contexts, and career trajectories. Despite the small number, these cases are sufficient because narrative inquiry emphasizes depth over breadth, enabling meaningful pattern generation and insight into curriculum engagement. To ensure credibility and validity, the study followed criteria of credibility, transferability, dependability, and confirmability (Lincoln & Guba, 1985; Mertova & Webster, 2007) through thick description, reflexive audit trails, and member-checking.

Strategic ordering of these four gives a narrative coherence, showing how individual experiences converge into a collective understanding of the math curriculum and educational system.

As an ethical consideration, although they were my friends and professional acquaintances, pseudonyms have been used to protect their identities. Information was collected through informal conversations and corroborated by secondary sources such as colleagues and family members. Their voluntary sharing of experiences was respected, and care was taken to represent them fairly and sensitively, maintaining confidentiality and ethical integrity throughout the research process.

Narratives and Interpretive Analysis

The analysis of the narratives generated through this study revealed several interrelated themes that capture teachers' professional journeys, ethical commitments, and engagement with curriculum reform. These narratives go beyond personal storytelling—they reflect how teachers interpret their lived experiences in relation to the evolving educational landscape of Nepal. Each teacher's account was analyzed through Pinar's (2012, 2019) four phases of *currere*—regressive, progressive, analytical, and syncretical—to explore how personal histories, professional practices, and moral reflections converge in shaping their educational consciousness.

The interpretive process illuminated how teachers construct meaning from their struggles, aspirations, and classroom realities. It revealed patterns of professional growth, ethical resistance, and reflective practice that inform their identities as educators and reform agents. The following sections present the four teachers' narratives and their interpretive analyses, followed by a synthesis of major findings emerging from the data.

Teachers' Journeys and Reflections

The narratives that follow portray the teachers' unique yet interconnected pathways of professional learning and moral engagement. Each story demonstrates how personal experience intertwines with pedagogical practice and curriculum meaning-making, illustrating the dynamic relationship between individual agency and structural constraints in Nepal's mathematics education.

Ram BK: Dignity, Discipline, and Systemic Neglect

Ram, due to his socio-economic context, dropped out in 7th grade and went to India for earning, but lots of troubles came back and admitted to school. He managed his

fees and stationery with wages from labour. He was admitted to an intermediate level in a town by self-supporting with tuition fees. As he passed Intermediate in Education in math, he joined a private school and pursued Bachelor's in Education in math. He shifted to a public secondary school math teacher and achieved 100% results in three consecutive years, so he got the chance to shift to a famous school in the district headquarters. He continuously improved himself, got a master's in math education, got permanent, and got Trainer of Teachers training during the School Sector Reform Plan (2009-2015) and the Schools Sector Development Plan (2016- 2022). He upgraded into second and first class through a competitive written exam. He has been serving as the headteacher for the past year.

He reported that students, preferring easy passing rather than the habit of laboring and deep learning, long-engaged in cellphones, and do not fear of (future) parents and teachers, are becoming anarchical and arrogant. He added an event (in first person narrator) - in one morning, 7:30 am, I was teaching a coaching class in school, a father came to the school and requested to go to his home, of 7 minutes away, I dragged the blanket of the student and asked why sleeping instead of attending class. The student counter asked me- Why do you, as a headteacher, come to my bedroom? After 10 minutes of debate, the student said- I will be presented in school after three days. I observed no regret in his face; rather, he will be presented in school (for me rather than him).

He added- We have no budget and manage for the math lab; even though I have taught teachers in training. I have skills in constructing all with flex printing and board ply, if students are eager to learn and helpful in making. I made a 90% pass rate in SEE math despite their poor background in earlier classes by using different techniques to maintain the prestige of a master trainer and first class. As a headteacher, I have very difficult to run the school- better socioeconomic students go to private schools; uneducated politicians interfere in administration; and teachers are not dedicated. I perceived my teachers as cash-holders, power-holders, and prestigious persons in comparison to the other members of the community. But now teachers are rushing for extra earnings to become equal to the other members of society instead of professional devotion. The teaching profession for me was very inspiring, but now neither society nor students respects now. I am from the lowest socioeconomic strata of the community- education was a means of teacher and teacher was the "freedom from poverty, misery, and dignity-less status".

While analyzing the narrative information from Ram with the Currere approach, it suggests - (a) Regressive: Ram's memories of poverty, struggle, and perseverance in education shaped his identity as a disciplined, self-made teacher. Education, for him, symbolized liberation from indignity and deprivation. (b) Progressive: He envisioned teaching as a dignified profession through which he could uplift both himself and his community. His advancement into higher education and leadership positions reflects his aspiration for professional excellence and social mobility. (c) Analytical: He critically observes a moral and motivational decay among students and teachers. He attributes students' disinterest and arrogance to technology misuse and weak home-school discipline, and teachers' declining ethics to economic and political pressures. The absence of basic facilities like math labs and the politicization of school governance further undermine learning. (d) Synthetical: Ram synthesizes his life's struggles into a philosophy of education rooted in dignity, hard work, and ethical professionalism. Despite systemic neglect, he continues to innovate pedagogically, maintain student success, and hold education as a moral vocation.

Ram infused his past struggles, future hopes, and current realities to synthesize his view on public education. Despite systemic challenges, he applied different teaching techniques, maintained high pass rates, and upheld professional integrity, seeing education as a path to dignity and social transformation. Ram's journey highlights how personal resilience and reflective practice enable teachers to navigate structural inequities while fostering meaningful learning.

Sita Sapkota: Navigating Socioeconomic Divides in the Classroom

Sita, daughter of a teacher, with the School Leaving Certificate, went to Kathmandu for intermediate in education with specialization in math and science. She pursued a Bachelor's and a Master's in math. After completion, she came back to her school (from where she had completed SLC) to start her teaching career. Later, she became a permanent teacher in her district, but at the headquarters. She was denied the opportunity of being an assistant headteacher. Rather, she got transferred to Kathmandu. In the public school at Kathmandu, she teaches in two sections in grades 9 and 10, where section B in both grades is filled with domestic laborers, students who are tired and sleepy, absent many days due to work at the hosts' home, without homework, a sorry state than enthusiasm; despair than the hope, dream, curiosity, zeal. Section B pupils routinely fail despite the same passing percentage (35%), which results in Sita's

headteacher and the municipality issuing warnings. Recognizing that she and the Section B students cannot afford additional tuition, she attributes this to "ill fate." Sita notes that students in Section B were promoted from Grade 1 without any prerequisite knowledge, unlike the "talented" students in other sections who were accepted based on screening tests. She is worried about the learning of these students for their kind, as well as for her own responsibility in front of the school and metropolitan administration. She is seeking any training to help such students to enable them to obtain the cut-off score. But, she cannot access the training-providing agencies.

The information above about Sita's life and teaching journey, observing through the lens of four stages of Pinar's (2019, pp. 23-27) *currere* suggests that (a) the regressive phase- she reflects on her roots as a teacher's daughter, her education in math and science, and her return to teach at the very school she graduated from, showing a deep personal commitment to education. (b) progressive phase, she envisions an equitable classroom and actively seeks training to support marginalized students, especially those in Section B who face systemic neglect. The analytical phase reveals her awareness of how social inequalities are reproduced in schools, where privileged students are screened and supported, while disadvantaged domestic laborers are left behind, and they are pushed and promoted. But the institutional pressures often ignore these realities. (c) In the synthetic phase, Sita integrates her past ideals, present struggles, and future hopes by remaining ethically committed to teaching, refusing administrative power, and striving to uplift vulnerable learners despite systemic obstacles and limited support.

Sita integrates her past ideals, present struggles, and future hopes by remaining ethically committed to teaching, refusing administrative power, and striving to uplift vulnerable learners despite systemic obstacles and limited support. Sita's experience underscores the role of ethical commitment and teacher agency in mitigating socioeconomic disparities within rigid institutional structures.

Hari Sharma: Curriculum Evolution through an Author's Lens

Hari Sharma was waiting results of his Intermediate in Science second year. His school (from where he completed his studies) teacher asked him whether he would teach. Happily, he started teaching math at the school. While talking to me, now I feel that I was not only talented but also sincere and obedient in comparison to others since the teacher prefer me than the toppers. After some months, as he pursued a Bachelor's in

Arts in math, he shifted to the city and began teaching in a private school. At the completion of his Master's degree, he had visited a dozen schools and recognized a city. From classroom and tuition teaching, he saved and invested in a school and gradually became a principal. Meanwhile, he started writing a book series. While writing a textbook in a competitive market, he closely and carefully observed the students' learning individually, and try to link it with the course, deeply. As a private school teacher, he was sincere about the achievement scores of each student of the school and the tuition centre. Thus, he analyzed the content in the light of nature and the ability of students' learning. He reviewed the course of 1990, only subject teacher and textbook were the sources- now teachers, seniors, guides and guide books, practice books, internet, and YouTube, etc. are the sources of learning math. With the availability of numerous study aids, guides, guesswork, private publisher textbooks, and online tutorials, it is now simpler for students to learn and to get a passing mark in the School Leaving Certificate (School Education Examination) math exam.

He mentions curriculum changes that added new "factions" like set, mensuration, and statistics to the traditional arithmetic, algebra, and geometry, while eliminating topics like unitary law, work and time, profit and loss, and certain geometry theorems. Sharma draws attention to efforts to make subjects like VAT, tax, currency, and exchange rates more applicable in the classroom. The introduction of 25% practical marks, the use of hierarchical exam questions (knowledge, understanding, application, and higher ability), and the fact that students can earn 27 marks from lower-order questions are some of the reasons he cites for the increased ease of passing. He thinks that some abstract algebraic and geometrical content could be moved to optional math to make required math more truly useful, even though exams now emphasize evaluating the "process of learning" rather than just the "right answer."

The information in the format of Currere suggests- (a) Regressive- he reviewed his early journey into teaching-when awaiting his Intermediate in Science second-year results, he was invited because of his sincerity and obedience in addition to talent. He got an opportunity to teach together with his own teachers. This situation shaped his emerging self-perception as a responsible and capable educator, and these formative experiences laid the emotional and ethical foundation for his continued engagement in running a school, teaching, and authoring. (b) Progressive- his aspirations to teach math are observed, he pursued higher studies in mathematics and economics, but he also taught math in private schools. As he invested in and led a private school, he began

writing a series of mathematics textbooks. His goals reflected a desire to reshape education to be not only more inclusive and effective but also aligned with real-world applicability. (c) Analytical- he observed the transformation of curriculum and pedagogy in Nepal. He compared the limited learning resources of the 1990s, where only subject teachers and textbooks dominated the present-day abundance of support materials, including guidebooks, private publications, online videos, and practice resources. He noted that although passing math exams has become easier due to lower-order questions and a 25% practical component, there remains a need to revisit the relevance of abstract algebra and geometry in the compulsory curriculum. His ability to evaluate the shifting educational landscape with both appreciation and discernment shows his deep engagement with curriculum. (d) Synthetical- his concern for each individual student's performance, his attention to curriculum content, and his call for practical relevance all come together to reflect a curriculum vision rooted in care, contextual understanding, and equity.

Hari's concern for each individual student's performance, his attention to curriculum content, and his call for practical relevance together reflect a curriculum vision rooted in care, contextual understanding, and equity. His narrative illustrates that curriculum innovation is most effective when guided by teachers' reflective engagement and sensitivity to students' real-world learning needs.

Ramraj Rimal: Ethical Leadership and Curriculum Critique

He completed his school education (10th grade) in a rural area. He studied intermediate level on campus with parents' support but completed a bachelor's and master's degree in Mathematics education with the earnings from private school. In addition, he completed the study of Master n curriculum and evaluation. He sold the share of a private school in the city and started teaching in public schools in and around his village for five years. As he was appointed as a permanent teacher, he worked in a semi-urban area in a competitive environment. Through his work, he elevated himself to assistant headteacher. After three years, he got an opportunity to be of headteacher in a neighboring school. He claimed- I am one of the few who acquire the post with work, whereas most of the headteachers are aligned with political parties. He reported that teachers' qualifications and teaching resources are increasing, despite improvements in teaching techniques, students' enthusiasm and curiosity for learning are declining, which he attributes to an exam-centered approach. For him, teachers who were appointed in the

last decade are quite interested and open to learn and being changed, but others want the status quo. He notes that approximately 90% of school headteachers are politically affiliated cadres, often prioritizing loyalty over school improvement. In this situation, the headteacher can neither legally nor ethically force the teachers to make them improve students' learning.

He reported a major crisis, which lies in foundational math education, where non-specialist teachers are permitted to teach grades 1-5, leading to superficial understanding. He also points out that there are lots of errors in textbooks at lower levels, but teachers do not identify and correct these while teaching. Students cannot complain about teachers' weakness and negligence even if they identify it. Qualified teachers often prefer higher grades, neglecting the crucial early development of a "math mind". He metaphorically states it's too late to "incubate the egg after it has already hatched poorly" by the time students reach grades 9 and 10.

Experts who changed the curriculum claim that they have made the math curriculum as practical as possible. Abstract units of earlier years have been changed to more concrete ones. But, I find it still abstract- e.g., to find the area of a room far carpeting by measuring its length and breadth is a practical (real-life) question, but how can a question that asks to calculate the length of a room by giving area and breadth be practical? In earlier days (in his time), 60% of questions were asked from the 9th and 40% from the 10th grades, but now, questions in SEE are asked from the 10th grade. The logic behind the change is just easing students to get a pass mark.

The information above suggests the following phases: (a) Regressive – He recalls his schooling in a rural area, his struggles during intermediate and university education, and his self-reliance through working in private schools, earning to invest in a share of the private school. He earned degrees in Mathematics Education and Curriculum and Evaluation. These experiences shaped his vision to analyse mathematics curriculum, teacher development, commitment to academic honesty, and teaching as a profession, not just a position. This also builds the foundation for his critique of politicization and exam-oriented culture. (b) Progressive- he envisioned meaningful teaching in his home region, thus left city-based private schools and returned to rural and semi-urban public schools. His progression from teacher to assistant headteacher and then headteacher was achieved through dedication rather than political ties. He envisions a system where foundational mathematics is taught by specialists, and students experience genuine understanding, not superficial rote learning. He desires headteachers to be selected on

merit, not politics. (c) Analytical- He situates his educational experience within broader social, political, and institutional contexts, such as- Critiques the exam-centered culture that kills students' enthusiasm; Observes that qualified teachers avoid early grades, causing foundational gaps; Points out systemic issues like errors in textbooks, unqualified teachers in early grades, and students' voicelessness; He questions the superficial practicality of recent curriculum changes (e.g., finding room length given area and breadth isn't really "practical" in students' lives); and Critiques the political appointment of headteachers, which weakens institutional accountability. (d) Synthetical – in this final stage, he synthesizes personal insights with larger educational meaning to guide future action with moral and existential depth. He sees himself as one of the few meritoriously appointed headteachers, who tries to model ethical leadership; his experiences lead him to critically engage with the curriculum, advocate for foundational improvements, and speak against political interference; He embodies a moral critique of the system, aiming to restore teacher professionalism, support young reform-minded educators, and inspire authentic learning, despite systemic barriers.

In essence, he recalls how Westernized curriculum ideals ignored rural epistemologies; imagines teacher collectives shaping curriculum through local discourse; He critiques the Tylerian logic of fixed objectives, arguing for dialogical curriculum design; and envisions ethical teacher leadership rooted in self-reflection, cultural knowledge, and social justice. Ramraj synthesizes personal insights with larger educational meaning to guide future action with moral and existential depth as well as models ethical leadership, critiques superficial curriculum practices, and advocates for teacher professionalism and foundational improvements. Moreover, he exemplifies how teachers' critical reflection and ethical leadership can transform curriculum practice and promote systemic improvement.

Across the four narratives, a common thread emerges—teachers as reflective practitioners who reinterpret curriculum through lived experience. Despite differences in geography, generation, and institutional context, all engage in ethical self-examination that links the personal and professional. The *currere* process enabled them to transform memories of subordination into sources of agency and insight. Collectively, their journeys reveal that meaningful curriculum reform in mathematics depends not on structural mandates but on teachers' capacity to connect knowledge, context, and conscience.

Findings and Discussion

Although the detailed analysis of each teacher's narrative was conducted using Currere and thematic coding, a separate "Findings and Discussion" section is presented here to synthesize patterns, highlight emergent themes, and interpret their significance in relation to Nepal's mathematics curriculum and teacher agency. The following four interrelated themes capture the lived experiences of veteran mathematics teachers and illustrate how personal histories, professional trajectories, and ethical commitments intersect with curriculum reform in Nepal.

Teaching as a Path to Dignity and Transformation

Teachers like Ram and Ramraj framed education as a pathway to social mobility, personal dignity, and moral upliftment. Their narratives reveal how early struggles with poverty and limited access to education shaped a deep ethical commitment to teaching (regressive phase). Despite systemic neglect and resource constraints, both maintained professional integrity and devised innovative strategies to improve student outcomes (analytical and synthetical phases). Their reflections underscore education as a transformative process, both for themselves and their communities, where teaching becomes an act of resistance against marginalization and a vehicle for societal betterment.

Teacher Agency and Ethical Commitment amid Systemic Constraints

Sita and Ramraj's experiences highlight the continuous negotiation between institutional expectations and personal ethics. Teachers navigate bureaucratic and political pressures while striving to uphold fairness, care, and justice. For example, Sita's efforts to support marginalized students in Section B—despite limited training opportunities and systemic neglect—illustrate moral agency within restrictive school environments. These narratives demonstrate how teachers act as ethical agents, sustaining hope and purpose even when formal systems fail, and reflect the progressive and synthetical phases of Currere, where personal values inform professional action.

Shifting Curriculum and Changing Educational Culture

Hari's narrative traces the evolution of Nepal's mathematics curriculum from abstract, exam-centered content to more practical, skill-oriented frameworks. He observes that while reforms have introduced real-life topics and practical assessments,

rote learning and reliance on guidebooks persist, privileging students with access to private support. Through the analytical and progressive phases of Currere, Hari critically examines these contradictions, emphasizing that curriculum reform without corresponding pedagogical renewal risks superficial learning. His reflections highlight the interplay between curricular changes, educational culture, and inequalities in learning opportunities, illustrating the broader structural challenges of reform implementation.

Reflective Praxis and Teacher Identity Formation

Across the narratives, teachers emerge as reflective practitioners who reconstruct their professional identities through continuous reflection. The Currere lens reveals how they connect past experiences, present realities, and future aspirations to develop critical consciousness about their roles as educators. Their stories demonstrate that curriculum transformation begins not in policy but in personal meaning-making and ethical action. Reflective praxis becomes both a site of resistance and renewal, enabling teachers to maintain agency, navigate structural constraints, and sustain professional identity despite systemic barriers.

Synthesis and Interpretive Insights

Viewed collectively, the four narratives reveal both progress and persistent challenges in Nepal's mathematics education. Practical content, continuous assessment, and teacher training indicate advancement; yet systemic flaws—politicized leadership, exam-oriented pedagogy, and unequal classroom opportunities—persist. The tension between formal curriculum (Tylerian objectives) and lived curriculum (Currere-informed experiences) underscores the importance of empowering teachers as reflective agents rather than passive implementers. These findings highlight that meaningful reform depends on teachers' ethical engagement, reflective practice, and capacity to integrate knowledge, context, and conscience in shaping classroom learning.

Conclusion

This narrative inquiry, guided by Pinar's Currere, illuminates the professional journeys of four veteran mathematics teachers who embody curriculum as lived experience. Their stories reveal that while national curriculum policies remain centralized and prescriptive, teachers enact reform through personal reflection, moral agency, and critical practice. The study shows that authentic transformation in Nepal's

mathematics education requires listening to teachers' Currere—their personal interpretations of purpose, struggle, and hope—and integrating these into curriculum decision-making.

Researcher's Critical Reflection

Viewed through Brookfield's (2017) lens of critical reflection, the narratives invite interrogation of power, ideology, and positionality in curriculum reform. Teachers' voices reveal that the system's rhetoric of modernization and inclusivity often conceals deep structural inequities. Exam culture, politicization, and urban bias persist under the banner of reform.

The four teachers appear simultaneously as agents and victims—critically conscious professionals constrained by hierarchical control. Their reflections urge that curriculum change in Nepal must transcend technical adjustments and embrace ideological, ethical, and human renewal.

Veteran mathematics teachers in Nepal manage to find ways for deep professional growth despite working within a centralized curriculum system that limits their role to implementation. They face numerous challenges, including preparing students for high-stakes exams, dealing with intense parental pressure, and teaching in schools that often lack resources and digital equipment. Yet, the teachers in this study demonstrate strong self-direction, moral commitment, and agency that go far beyond what the formal system requires. This suggests we need to rethink professional development. Instead of seeing professional development as simple skill training (Shrestha & Acharya, 2023), we should view it as a process of identity formation and moral engagement. Policy changes must move past just offering training courses; they need to acknowledge and support teachers as ethical, reflective, and influential agents of reform within their constrained systems (Baraily & Belbase, 2025).

Recommendations for Policy and Practice

The narratives of the four veteran mathematics teachers underscore an urgent need to restore the dignity and moral purpose of the teaching profession. Revitalizing teacher identity requires both community-level recognition and national campaigns that reposition teachers as moral agents and social role models (Freire, 1970; Goodson, 2003). At the institutional level, reforms should legally empower headteachers with authentic administrative and instructional authority, enabling genuine school leadership and decision-making (Fullan & Hargreaves, 1992). Professional development initiatives

must align with Hargreaves and Fullan's (1992) vision of moral purpose and collective efficacy, promoting teachers' ethical commitment, collaboration, and reflective practice.

Curriculum reform should be grounded in teachers' lived experiences and local contexts, consistent with Pinar's (2004) concept of *currere* and Vygotsky's (1978) constructivist pedagogy. Embedding mathematical concepts within real-life examples enhances students' understanding, retention, and engagement—particularly for marginalized learners. Furthermore, minimizing political interference in school governance is critical. As Ball (1994) cautioned, politicization of educational leadership diminishes teachers' morale, accountability, and overall learning outcomes. Transparent, merit-based appointments combined with community oversight can help rebuild institutional trust and integrity.

Beyond policy reform, these narratives suggest several directions for research and pedagogical innovation. To understand the declining depth of learning in public schools, narrative inquiry (Clandinin & Connelly, 2000) and action research (Stenhouse, 1975) can illuminate how teachers and students experience educational realities shaped by socioeconomic pressures and digital media exposure. Investigating how informal learning tools—such as YouTube tutorials and guidebooks—influence students' motivation and cognitive depth will help map the contours of today's hybrid learning ecology (Anderson & Krathwohl, 2001).

Further qualitative studies on teacher identity reconstruction, particularly among educators from marginalized backgrounds, can reveal how professional dignity and agency are negotiated within hierarchical and politicized systems. School-based action research projects, grounded in teachers' lived experiences, can bridge the gap between curriculum policy and classroom practice. Such work will not only strengthen local practice but also contribute meaningfully to global discourses on curriculum justice, equity, and teacher agency.

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