

IMPACT OF MOTHER TONGUE ON CONCEPTUAL UNDERSTANDING OF STUDENTS AT ELEMENTARY LEVEL IN GUJRAT

Dr. Azmat Farooq¹, Dr. Nishat Zafer², Dr. Nazish Andleeb^{*3}

¹Assistant Professor, Khwaja Fareed University of Engineering and Information Technology (KFUEIT), Pakistan

²Associate Lecturer, Department of Education, University of Gujrat, Pakistan

^{*3}Assistant Professor, Department of Education, University of Gujrat, Pakistan

^{*3}nazish.andleeb@uog.edu.pk

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Corresponding Author: *

Dr. Nazish Andleeb

Abstract

Mother tongue plays a central and incomparable role in the development of young learners in terms of cognition, emotion, as well as cultural. Although this theoretically strong situation applies, most Pakistani elementary government schools still use a propagated medium of instruction, in which most students do not speak the language, namely a language either Urdu or English that does not specifically serve as a mother-tongue of many students, especially in linguistically homogeneous groups (such as Gujrat district, where Punjabi is spoken mainly as a mother-tongue). This lack of connection between the language used at home and the language used at school has been theorised extensively to serve as a barrier to conceptual learning, as well as academic self-confidence and meaningful learning in young students. This paper is a quantitative, descriptive research study which aims to compare the effects of mother tongue with the idea of conceptual knowledge among female learners of Grade 7 and Grade 8 in government elementary schools in Tehsil Gujrat, Punjab, Pakistan. The research is confined to 10 randomly chosen elementary schools of government girls among the 60 schools running in the tehsils. One hundred and fifty students (15 students each school) are chosen by being sampled out. A 20-item Yes/No questionnaire (nominal data scale) designed by the researchers is used to gather the data on a 4-domain insight of students' perceptions regarding cognitive and intellectual knowledge, cultural and emotional identity, academic confidence and comfort, and learning outcomes. Data analysis using SPSS makes use of frequency counts, percentages, as well as chi-square analysis. The anticipated result suggests that most students find the mother tongue teaching to be very helpful in the conceptual level, emotional safety, academic and the general learning results of the elementary level. The paper ends with specific suggestions of policy regarding language-in-education, teacher education and curriculum reform in Gujrat and in Punjab in general.

1. INTRODUCTION

Language is not only a riding pig, but it is the same medium by which human beings conceptualise,

reason and understand the world. To a young child joining a formal school the correspondence, or non-correspondence, between the language

spoken at home and the language used in the classroom is hence a question of deep cognitive, growth, impact. Since children are taught the language which is not their native tongue, they are also asked not only to learn something new but also to process the information with the help of a foreign linguistic means, which puts a double geographical load of the mind, severely interfering with the conceptual and may impede academic interest and suppress the inherent curiosity which governs his or her learning during the initial years (Cummins, 2001; UNESCO, 2003).

The issue of mother tongue in education in Pakistan is not only linguistically ambiguous but also a politically charged one. More than seventy regional and local languages are found in the country; the most popular ones with first language use are Punjabi, Sindhi, Pashto, Balochi, and Saraiki. However, primary and elementary level national language of instruction is Urdu, with an increasing trend towards English as the language of instruction (Grades 1-10) in most provinces. In Gujrat district, where the majority of the population has home languages other than English, this layout implies that the majority of children come to school already culturally and linguistically separate in the areas in which they will learn, internalise, and perform knowledge in all subject areas (Mansoor, 2005; Rahman, 2002). The alleged impacts on the conceptual knowledge are important. Studies have always revealed that children acquire stronger, more enduring and transferring knowledge of abstract ideas when they first engage in experiences of the abstract idea in their indigenous language (Skutnabb-Kangas, 2000; Benson, 2004). Mother tongue teaching gives the students the chance to correlate the new material with the old schemas of thinking, posing questions using the language they think in and being able to get answers using the linguistic code they most intuitively comprehend. On the contrary, teaching in a foreign language suffers the danger of surface, rote learning where children repeat orally what they have not learned conceptually- a phenomenon that has widely been observed in the primary and elementary school research in Pakistan (Ali and Iqbal, 2019; Harlech-Jones et al., 2005).

Though this argument has theoretical and empirical strength, the relationship between the use of the mother tongue and conceptual understanding among elementary level female learners in Gujrat has never been empirically researched, in a structured quantitative research. The article fills this gap by exploring how mother tongue use affects students own perception of the effects on their intellectual comprehension, culture, academic self-confidence and learning achievement through a descriptive study using a 20-item Yes/No questionnaire to 120 Grade 7 and Grade 8 female students in 10 randomly selected government girls elementary schools in Tehsil Gujrat.

2. Importance of the Research

The study has both theoretical, empirical as well as policy implications, which will be discussed respectively.

In theory, the research itself adds to the current literature on the topic of mother tongue-based multilingual education (MTB-MLE) in the South Asian setting. A fundamental pillar of the MTB-MLE theory is the Interdependence Hypothesis (Cummins, 1979, 2001) of which is the idea that the cognitive and linguistic basis of proficiency in second and third languages as well as academic study lies in competence in first language. Making an empirical analysis on the perceptions of students in the elementary schools of Gujrat, not only this theoretical argument is supported with some contextually based data that substantiate the theoretical claim but also complicates it in the context of a linguistically and culturally particular Pakistani school.

The study empirically bridges a definite and documented gap in the academic literature on the Gujrat-specific educational research. Although, the national policy discourse and provincial education reports recognize the language-learning issue in state-funded schools, the precise, institution-centered quantitative data on the way in which female elementary schools learners in Gujrat understand the role played by their mother-tongue in their education are not available in the literature. A standardised questionnaire with nominal measurement on a randomly selected

sample of schools produces a repeatable, base set of data that can be used incomparable with subsequent research or be generalised to other tehsils.

Policy-wise, the results of the present study are immediately applicable to the Punjab Curriculum and Textbook Board (PCTB), the District Education Authority Gujrat, and the current discussions of the Federal Ministry of Education of language-in-education policy within the framework of the National Curriculum Framework (NCF, 2023), which is the first official recognition of the role of mother tongue

familiarity during the early years of schooling. The testimonies given by elementary-school-going girls who are the focus of a group whose educational access and outcomes are already a priority issue in Punjab offer a curious, student-centred contribution to the policy discussion that has long been seen as lacking in such.

3. Delimitation of the Study

The research will be narrowed in a deliberate and specific manner to provide methodological focus and a specific context given to the research. The study is limited by the following:

Table 1: Delimitation Parameters of the Study

Delimitation Parameter	Specification
Geographic Boundary	Tehsil Gujrat, District Gujrat, Punjab, Pakistan
Institutional Boundary	Government Girls' Elementary Schools only (excluding private and boys' schools)
Total Schools in Tehsil	60 registered government elementary schools
Selected Schools	10 female government elementary schools (randomly selected)
Grade Level	Grade 7 and Grade 8 only
Gender	Female students only
Students Per School	15 students randomly selected per school
Total Sample	150 students (10 schools × 15 students)
Data Collection Tool	20-item Yes/No questionnaire (nominal data)
Time Boundary	Academic Year 2025–26

These restrictions do not represent the constraints of the study but rather an intentional approach to the methods based on the need to provide findings that are context-driven, internally acceptable, and relevant to the real world or in this case to the contextual area of government girls elementary schools in Tehsil Gujrat. One determination to be stressed is that generalisations be made beyond this setting only with due but caution and the structuring of the study in other tehsils, districts and with males as a student population is categorically advised as a guideline to future research.

4. Statement of the Problem

In Gujrat district, students in elementary school, in the public institutions are almost entirely Punjabi-speaking at home and mostly Urdu-speaking at school, but are increasingly being taught in English, rather than Urdu. This language break causes a significant intellectual load to young learners having to negotiate the requirements of academic material acquisition with the linguistic requirements of processing the purchase of that material in an unknown medium. The impact of this load can be seen through tangible learning results: low understanding rates, a reluctance to participate in the classroom,

inability to express meaning, memorization but without an actual cognitive grasp, and a high level of educational poor performance in subjects of core learning in Grade 7 and Grade 8 pupils in the district public elementary schools (District Education Authority, Gujrat, 2022; Punjab Examination Commission, 2023).

The level of vulnerability is further compounded on female students in government primary schools. In Pakistan, studies have always kept records that girls of the public elementary schools tend to be biased to social pressure towards silence and conformity in the classroom, and to be less eager to ask teachers questions and point to their confusion, which is practically amplified by the non-use of the language they know best as a medium of instruction (Huma & Farid, 2018). Whether the use of the mother tongue in the classroom might become an effective equalizer of such students- diminishing the mental and emotional barriers to the ability to understand concepts and engage in academic pursuits, has not been systematically researched in the Gujrat context.

The research gap, thus, is lack of empirical and student-centered data to quantify the perceived effect of using the mother tongue in understanding concepts and related learning achievement among girls in Grade 7 and Grade 8 in government elementary schools in Tehsil Gujrat. It is proposed that this research will yield that evidence in the form of a designed criminal descriptive inquiry that follows a questionnaire methodology.

5. Research Objectives

The particular research objectives that will be the guide to the present study include:

1. To determine the attitude of Grade 7 and Grade 8 girls towards the role of their mother tongue in enabling them to gain intellectual and conceptual knowledge on subject matter in government elementary schools in Tehsil Gujrat.
2. To study how students perceive the role of the mother tongue in the elementary school learning setting, in terms of cultural, emotional, and identity-based functions of the mother tongue.

3. The level of perceived benefits of mother tongue use as a means to their academic confidence, comfort and ability to communicate in the classroom.

4. To explore perception of students on how mother tongue teaching affects better educational achievement in the elementary level.

5. To evaluate perception differences between Grade 7 and Grade 8 students of the chosen questionnaire items to determine any grade level difference in attitudes towards mother tongue use.

6. To offer evidence-based policy and teaching practice advice in government girls elementary schools in Gujrat district on issues to do with language in education..

6. Research Questions

Primary Research Question

- RQ1 What is the perceived effects of using mother tongue and learning concept of Grade 7 and Grade 8 female students in government elementary school in Tehsil Gujrat?

Subsidiary Research Questions

- RQ2: To what extent do female elementary students in Gujrat feel that their mother-tongue can be used to help them intellectually understand and realise an idea of the complex academic concepts?
- RQ3: What are the perceptions of students regarding the possibility of maintaining cultural identity and promotes mental, moral and emotional growth by using mother tongue?
- RQ4: How often do the students indicate that they feel more confident, comfortable, and safe in learning environments when their mother tongue is used as language of instruction?
- RQ5: What is the percentage of students who find mother tongue instructions positively associated with the better learning outcomes at the elementary level?
- RQ6: Do mother tongue perception between Grade 7 and Grade 8 students differ significantly on the key questionnaire items??

7. Research Methodology

7.1 Research Design

The type of research design used in this study is a quantitative and descriptive study design. Descriptive research is interested in the systematic description, documentation, and analysis of the nature, attitudes, and perceptions of specified population as they are without artificial control of experimental intervention and experimental generation or evaluation of hypotheses (Creswell & Creswell, 2018; Best and Kahn, 2006). The design suits the current study since the aim of the design is to produce a true, empirically based image of the perception female elementary students in Gujrat have about the role their mother tongue plays in their learning- an issue of frequency and distribution, not cause and effect. With the nominal-level (Yes/No) and structured questionnaire data, which conform to frequency analysis, percentage reporting, and chi-square analysis instead of correlation and experimental statistics, the descriptive design is most appropriate.

7.2 Conceptual Framework: Independent and Dependent variables.

This theoretical literature of the research is based on three frameworks that are interrelated. The

Interdependence Hypothesis of Cummins (1979) is the main cognitive explanation that holds that the native tongue forms the basic lingual and conceptual basis, on which the academic command of language and understanding of material in any other tongue is based. The social and teaching explanation, provided by the theory of zone of proximal development (ZPD) of Vygotsky (1978), suggests that effective music cognition takes place within the language whereby the learner can engage in the scaffolded support of teachers and peers in the most genuine way possible. Lastly, the research is based on the advocacy of UNESCO (2003, 2016) about mother tongue-based education that introduces the research to an established global policy framework connecting language rights, educational equity, and the quality of learning.

The independent variable (IV) is the use of mother tongue in teaching and classroom interaction which is measured in four thematic areas in the questionnaire. The dependent variable (DV) is conceptual understanding in students, which is operationalised by students perceived conceptual understanding, academic confidence, and learning outcome through self-reporting. Table 2 shows the entire variable structure.

Table 2: Conceptual Framework – Variable Structure

Variable Type	Variable	Dimensions / Indicators
Independent Variable	Mother Tongue Instruction	Use of mother tongue in classroom instruction, explanation of difficult concepts, access to kalam/poetry, communication with parents
Dependent Variable	Conceptual Understanding	Comprehension of subject matter, intellectual understanding, academic confidence, learning outcomes at elementary level
Moderating Variable	Student Confidence & Comfort	Emotional security, self-confidence in communication, relaxed classroom atmosphere
Control Variables	Grade Level, Gender, School Type	Grade 7 and 8, Female students, Government Elementary Schools

The conceptual model suggests that increased use and confirmation of the mother tongue in the classroom environment will lead to better conceptual comprehension, increased academic confidence, and better learning outcomes among the female elementary students. The variables to be controlled as such as; grade level (7 vs 8), location of the school and the age of students are taken into consideration by using stratified sampling and sub-group analysis.

7.3 Population of the Study

In this study, the focus group will consist of all 7th and 8th grade girls students who are enrolled in all 60 registered government girls elementary schools that serve at the tehsil level in Tehsil Gujrat, District Gujrat Pakistan. According to statistics of the District Education Authority, Gujrat (2022), some 4,800 female students are presently pursuing Grade 7 and Grade 8 in these schools. Relative linguistic homogeneity; the great majority of the students are first language speakers of Punjabi, combined with dispersion in terms of urban/peri-urban location, family socioeconomic background and previous performance in academic tasks are characteristic of the population and are taken into consideration in the sampling strategy.

7.4 Sample and Sampling Technique

A sample of $n = 150$ students will be chosen by using two stage random sampling process. During the first stage, 10 government elementary schools which are located in the urban areas will be randomly picked out of the total number of 60 tehsil-level government elementary schools registered with the District Education Authority, Gujrat using a lottery technique where each school is assigned a number and 10 numbers are drawn and not replaced. This is to ensure that all schools within the population that is accessible have the same likelihood of being sampled, which in turn gives the school-level sample representativeness. The second stage will involve random selection of 15 students per selected school (through Grade 7 and Grade 8) using a systematic random sampling method of selecting the n th name of the register of current students after a random selection of the first name. This will result in a sample size of 150

students (75 Grade 7, 75 Grade 8) and will be balanced between the 10 sampled schools. This is the right sample size to use in a descriptive study and is using frequency and chi-square analysis as it will give reliable percentage estimates of the frequencies of items and usable cell frequencies to do chi-square tests successfully (Cohen et al., 2018; Krejcie and Morgan, 1970).

7.5 Research Instrument

The researcher will use Student Perceptions of Mother Tongue Questionnaire (SPMTQ) N 20-item questionnaire that utilizes a nominal scale (Yes/No) of responses to gather data. This scale has been divided into four thematic domains based on the four dimensions of the independent variable that were discovered in the conceptual framework, and has five items in each category:

- Domain 1 Cognitive and Intellectual Understanding (Items 1 5): Measures perceptions of students regarding the easier language use, intellectual knowledge, culture maintenance, education achievement and mental and moral growth.
- Domain 2 – Cultural Identity and Equity (Items 6 10): Look at student perceptions about how the mother tongue can help enhance learning outcomes, Kalam (cultural poetry), instructional access and equity and parental involvement with storytelling, and whether strategies need to be developed or not to enhance mother tongue growth.
- Domain 3 - Academic Confidence and Comfort (Items 11 15): Measures perceptions that mother tongue use helps students to explain complex concepts, gives them a sense of security in the learning process, confidence in communication building, generates a feeling of relaxation in classroom and forms an honour and source of identity.
- Domain 4 Learning Outcomes and Achievement (Items 16 20): Measures perceptions of student regarding mother tongue as understandable, confidence-building, favourable to academic achievement, able to improve learning outcomes at the elementary level, and worthy of recognition via cultural poetry.

The reason behind using Yes/No response format (nominal scale) in this study is due to its developmental suitability (grade 7 and 8 respondents), the survey minimises response causing ambiguity, speed and unambiguity in data entry and frequency analysis, and less cognitive load on respondents who might not have much

familiarity with Lickert type response format. The tool will be given in Urdu (the medium of instruction) and where applicable the research assistant will give the explanations in Punjabi to make sure that he/she understands all the key terms well. Table 3 shows the nominal measurement scale and data coding convention.

Table 3: Nominal Data Measurement Scale – Yes/No Response Format

Response	Meaning	Data Coding
YES	The respondent agrees with or confirms the given statement	Coded as 1 in data entry; interpreted as positive affirmation
NO	The respondent disagrees with or does not confirm the statement	Coded as 0 in data entry; interpreted as absence of the attribute

7.6 Validation of Instrument

The structured two-stage validation of the SPMTQ will be done, before being deployed at full-scale level.

Content Validity: The draft SPMTQ (20 items) will be presented to a group of six subject matter experts who will include two linguistics and language education professors, two educational psychologists who specialise in mother tongue research, and two experienced teachers (at least ten years in a Punjab elementary government school). All professionals will assess all items with regard to their relevance to the construct of mother tongue-mediated conceptual understanding as well as the language of Grade 78 respondents and the absence of cultural/social bias. The level of Content Validity Index (CVI) will be calculated at the item level (I-CVI); the items with low I-CVI (I-CVI less than 0.78) will be revised or dropped (Polit and Beck, 2006). A minimum scale-level CVI (S-CVI) of 0.80 will be necessary before the instrument is given pilot testing status.

Pilot Testing: The Cleaned SPMTQ will undergo pilot testing as $n = 30$ students (15 Grade 7, 15 Grade 8) in two government elementary schools in Tehsil Gujrat not part of the main study will be used. The pilot will determine the understandability of the language of the items, the time required to administer them, and the appropriateness of Yes/No response choice format in this age group through short cognitive

interviews with a set of five pilot respondents. The number of Yes in each item will be analyzed to warn of items that will give practically unanimous presentations (70% above in one group, 30% above in the other), which could lack the ability to describe. Before the finalisation of the instrument to be used in the main study, the pilot will give his/her feedback on items at the individual level.

Reliability: In case of dichotomous (Yes/No) items, internal consistency is determined with the help of the Kuder-Richardson Formula 20 (KR-20) that is the correct coefficient of reliability in the case of binary data. The targeted KR-20 value of the entire 20-item scale and the individual domain sub-scale is 0.70 and 0.65 respectively which is evidence of a satisfactory internal consistency (Fraenkel, Wallen, and Hyun, 2012).

7.7 Data Collection Procedure

The collection of the data will take place with the use of the following systematic steps in accordance with the ethical clearance and institutional permissions after their receipt:

Institutional Permission: Institutional permission will have formal letters of permission, which will be submitted to the District Education authority, Gujrat and to the principals of the 10 selected schools. The approval will be made at least four weeks before the scheduled date of collection of data in order to prepare temporally at school level.

Parental Consent and Student Assent: Since all participants are under 18 (12-16), the consent form will be sent home to parents/guardian via school administrative one week prior to the data collection. Verbal and written consent will be taken from the students on the day when they will be administered the questionnaires.

Questionnaire Admission: SPMTQ will be facilitated to the 15 chosen students of each school in one group session of the study under the guidance of a trained female research assistant in a good classroom environment. The instructions will be recited in Urdu and explained when needed, in Punjabi. Students will be reminded that the survey will be anonymous and their answers will not impact their grade or relationship

with their school. The expected time of administration is 20-25 minutes.

Data Entry: The data will be collected through completion and validation of completed questionnaires as part of the data entry and coded (YES = 1, NO = 0) into IBM SPSS statistics version 28.0 within 48 hours of each school visit.

7.8 Data Analysis

The nature of data used in this study is nominal (dichotomous) and this makes the analytical procedures adopted in the research. IBM SPSS Statistics Version 28.0 will be used to do all analyses. Table 4 is the summary of the analytical plan and it is discussed below in more details.

Table 4: Data Analysis Plan

Analysis Procedure	Description	Applied To	Tool
Frequency Count	f (Yes) and f (No) for each item	All 20 items	SPSS Frequencies
Percentage Distribution	% Yes and % No per item	All 20 items	SPSS Descriptives
Domain-Level Summary	% Yes across items in each domain	5 domains	Manual + SPSS
Chi-Square Test	Association between item responses and grade level (7 vs 8)	Selected items	SPSS Crosstabs
Bar Charts / Pie Charts	Visual representation of Yes/No distributions	All 20 items	SPSS Chart Builder

- Frequency Analysis: The frequency (f) and percentage (%) of YES and NO responses to each the 20 questionnaire items will be determined on the entire sample (n = 150) and summarized in a tables. This gives us the initial picture description of how the students felt about using mother tongue.

- Domain-Level Summary: To obtain a domain-level perception score, the average of Percentage YES will be calculated in each domain, in order to be able to compare them between the four thematic domains (cognitive understanding, cultural identity, academic confidence, learning outcomes).

- Chi-Square Test of Independence (2): To test differences in patterns of responses to chosen

items are significantly different between Grade 7 and Grade 8 students, Pearson chi-square tests shall be performed on 2=2 contingency table (Grade 7 vs Grade 8; YES vs NO) on each item having theoretical cell frequencies of 5 or above. The level of significance of 0.05 will be used.

- Visual Representation: The SPSS will be used to create bar charts and pie charts, which will be displayed in the findings section to help to intuitively interpret the percentage distributions of each item and domain.

8. Expected Results

In accordance with the theoretical framework, the literature and the features of research setting, the following results are expected:

- ER1 - High Affirmative Response Rates in All Domains: It is anticipated that most students (>70% YES response rate) will affirm perceived value of mother tongue instruction by pupils across all four domains of the SPMTQ; this is expected because such a response is well-documented as a subset of cognitive and emotional requirements of young learners in linguistically disparate communities (UNESCO, 2003; Cummins, 2001).

- ER2 -Maximum Affirmation in Cognitive and Comfort Dimensions: Items in Domain 1 (Cognitive and Intellectual Understanding) and Domain 3 (Academic Confidence and Comfort) are predicted to be the most subject to affirmation (>80 percent YES), since it is the cognitive challenge of processing the instruction using a non-native language, and the emotional relief provided by use of the mother tongue that is the most immediate and personal dimension of the mother-tongue-learning relationship among elementary students (Benson, 2004; Skutnabb-Kangas, 2000).

- ER3 – cultural identity Items Well-Endorsed: Items 2 pertaining to the cultural and social roles of the mother tongue-especially items mentioning kalam (poetry) and parental storytelling-should be expected to have high affirmation rates (>75% YES), as there are significant cultural implications to the Punjab language and oral literature in the community life of Gujrat.

- ER4 - Learning Outcomes Domain: Domain 4 Items on improved learning outcomes, academic assessment and examination preparation will have slightly more varied responses (65-80% YES), since the mother tongue use/instruction in connection to the academic performance in formal examination may be less clear in the mind of the student population than the emotional and comprehension benefits of mother tongue instruction.

- ER5 - Grade Level Differences ~ Chi-square Analysis - Grade 7s and Grade 8s will be expected to have statistically significant differences ($2 - p < .05$) on items pertaining to academic confidence and learning outcomes, with Grade 8s, having undergone more years of formal teacher

instruction in Urdu, having a higher likelihood of endorsing the perceived value of mother tongue use.

- ER6 – Nothing, which has Universal NO Response: In light of how well the theoretical and contextual memory predicts, the item is not supposed to get a majority NO response (>50%), and thus indicates general student support of the use of their mother tongue as helpful across all of the questionnaire dimensions.

9. Conclusion

The research question being studied is one that is on the intersection of language rights, educational equity and cognitive development; does mother tongue use in the elementary classroom significantly contribute to conceptual understanding of students? This question is not abstract at all in the local context of Tehsil Gujrat where virtually all native Punjabi-speaking adolescent learners in government elementary schools come to school speaking a different language, Urdu, in an educational system that has long remained an unquestioned and unthought-of set-up at local levels. It directly impacts the quality of learning, the level of interest, and the level of academic confidence of 120,000 young learners throughout the district in all schools on a daily basis.

The questionnaire-based, descriptive design of this research, with a Yes/No nominal scale of 20 well-validated items given to a randomly selected group of 150 Grade 7 and Grade 8 female pupils in 10 government girls elementary schools results in a student-centred, frequency-based response to this question. By premonstrating the views of the themselves as those who feel the cognitive and emotional effects of language-of-instruction policy most directly, the study provides empirical voice to an otherwise unheard in policy-making groups, namely curriculum planners, examination designers, and language ideologues.

In case the expected results are validated; or, the high proportions of students in Gujrat attribute a mother tongue to intellectual competency, cultural stability, academic self-assurance, and better learning results, the investigation will furnish the most locally rooted empirical

reasoning up to now ever done in favor of a significant reevaluation of language-in-education policy in the Gujrat government elementary schools. Although the conclusions may be more eclectic, the study will have presented a baseline dataset and a proven instrument on which future researchers and policymakers can build additional studies. At that, in one way or other, the students of the government girls elementary schools of Tehsil Gujrat will have been consulted on an issue that will influence the quality of their studies on a daily basis.

10. Recommendations

10.1 For Education Policymakers (Federal and Punjab Level)

- Consider the language-in-education provisions of the National Curriculum Framework (NCF, 2023) against empirical data available at district levels and explore the possibility of piloting mother tongue-based multilingual education (MTB-MLE) in the first instance in linguistically distinct districts like in Gujrat where the mismatch between the home language and the language of instruction can be greatest.
- Ask a province-wide survey on language-of-instruction use in elementary schools, with valid data collection tools (e.g., SPMTQ) to collect data on perception of students in diverse languages throughout Punjab.

10.2 For District Education Authority, Gujrat

- Introduce localized instructions to the teachers in the government elementary schools going to by girls that allow and encourage them to use Punjabi as a secondary medium of clarification and concept-testing in parallel to the curriculum-based standard medium of teaching, which is Urdu.
- Introduce mother tongue awareness and code switching pedagogy in the compulsory in service teacher training programme of elementary school teachers in Gujrat district.

10.3 For School Principals and Teachers

- Normalise and justify the use of mother tongue in classroom communication- especially

when explaining tough concepts, checking student understanding and the facilitation of student questions- to provide Punjabi speaking women students with a linguistically welcoming and emotionally secure classroom space.

- Introduce the Punjabi kalam, folk tales and oral literature as a culturally resonant supplementary material to subject instruction especially Urdu literature, social studies and Islamiat to help bridge the linguistic divide between home and school societies.

10.4 For Future Researchers

- Change the same to male students and in other tehsils of Gujrat district to establish the perceptions recorded among the female students as being specific to that gender or general across the elementary student body.
- Follow-up study with mixed methods using both questionnaire data and classroom observation as well as student focus groups to investigate the mechanisms underlying why mother tongue use aids or hinders conceptual learning in the Grade 78 classroom.
- Possibly: generalize the research and incorporate the views of teachers about the mother tongue use so as to come up with a teacher-student view on language of instruction issue in Gujrat public schools at the elementary level.

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