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Editorial

Sadhna Saxena

The objective of this special issue is to start a discussion on questions related to language and education such as the role of language in learning, and acquiring and shaping knowledge. In order to achieve this objective, there is a need to engage with "language across disciplines" such as social sciences, physical sciences, economics, history, literature and literacy; each of these disciplines also has a multi-layered relationship with language. As the papers started coming in, it became clear that each author's interpretation of the theme was different, ranging from "language of the discipline" (as physical sciences, mathematics and literature) to learning a discipline in a specific language be it the language of the market or standard language or language of the people (social sciences). Reading comprehension and reader response, including questions about spoken language/mother tongue of the reader is another area that has been discussed at length. As the guest editor of this issue, I am happy to share that we received some very interesting papers, though we have not been able to include all of them in the current issue. The theme is multidimensional and it certainly cannot be covered in a single issue. Provoking the reader to seek further knowledge in these and many other related areas and hoping for a continuous engagement is the purpose of this special issue. Therefore, I am sure the papers that are not included here will find place in subsequent issues of the LLT.

While finalizing the manuscript, I remembered a study conducted by a women's group on slum women who had undergone tubectomy. Many women reported multiple physical problems post their surgery. The doctors dismissed their problems saying that they were imagining them as the description (linguistic and cultural) of the problems did not fit their text book language and knowledge. Finally, it was found that some of the surgeries had indeed been botched up. That is when I realized that there should have been a paper by a doctor from a government hospital, working with people belonging to different classes, cultures and speaking different languages to understand the disconnect between the people, the medical text and language.

The issue of language across disciplines opens many possibilities of engagement with a variety of crucial issues related to people's knowledge and its marginalization; universal knowledge across disciplines and its articulation in different standard/mainstream/English languages; language, literacy and multilingualism; fixity or fluidity of language/knowledge; language as a means of coding-decoding information/knowledge and constructing/shaping knowledge; language and power; language as power, and so on. As already stated, we have tried to cover some of these topics through the papers in this issue, but this is just the beginning. There is no finality to any of the issues raised, the debates will continue and may even remain unsettled in many cases.

The interview with Shobha Sinha helps us to understand early literacy from a developmental perspective, the additive model of learning in multilingual classrooms and the crucial role played by research in understanding children, their language and culture. In this context she elaborates that the roots of emergent literacy lie in cognitive psychology, psycholinguistics, literacy theory and developmental psychology. Sonika Kaushik's paper is about the significance of Language Learning Approach in the early learning years. She advocates using children's experiences for making the transition from home language to school language and from oral language to written language. In her paper on critical literacy, Nishevita Jayendran tries to outline the strategies that can be deployed in the classroom to enable critical literacy among students.

In his paper on mathematics and language, Hriday Kant Dewan explores the commonalties between mathematics and human language acquisition. He argues that mathematics is not like a human language, even though there are some common features that they seem to share. Writing on mathematics and language, Haneet Gandhi writes about how a language promotes a disposition towards mathematical thinking/reasoning. In the Landmark section, C. N. Subramaniam tries to trace the historical roots of the resistance demonstrated by social science teachers to allow students to write the answers to questions in their spoken languages. In this context, he discusses the Brahminical traditions around the purity and fixity of knowledge written in Sanskrit, the language of power. He contrasts this with its rival Buddhist contention of conditioned and transient nature of everything, including truth and language. The author talks about the challenges posed by marginalized languages to professional social science writing, citing the examples of Kabir's oral literature which is open to interpretation, and the language of Dalit literature. Manish Jain tries to understand the relationship between the Social Sciences and language by examining different perspectives of their meaning and nature.

The paper on Science by Deepika Bansal examines the different ways in which language, science, and gender come together, and in the process impact and change each other, the effect of which are detrimental to both science and society. Sayan Chaudhuri writes a reflective account of his pedagogical engagement with a student from a Hindi-medium school background. In her paper, Payal Yadav writes about an experience that touches upon different aspects of language from a sociolinguistic perspective to understand the relationship between language and society. In his paper on the teaching of Economics in schools, Arvind Sardana argues that the pedagogy of economics is enriched when it is rooted in ordinary language that allows for engagement with ideas and perspectives.

This issue has three Book Reviews written by Neema Chaurasia, Veena Kapoor and Prachi Kalra; a Report by Chhaya Sawhney and Classroom Activities by Jayatri Chawla.

Articles

Teaching Economics in Schools in India: Issues, Controversies and Dilemmas

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Arvind Sardana is a part of the social science team at Eklavya. He has been a member of author teams at NCERT for Social and Political Life, and Economics at the high school level. He was closely associated with various state governments such as those of Chhattisgarh, Telangana and Bihar in the field of curricular reforms.

Key Words: Thematic approach, Interdisciplinary perspective, Ethical issues, Mathematical precision, Economic citizenship, Liberal Arts perspective

Abstract

In this paper, I will attempt to argue that ordinary language can be used to explain concepts in economics. Between Classes 6-10, an interdisciplinary perspective and a grounding in ethical issues is essential. The pedagogy of economics is enriched when it is rooted in ordinary language that allows for engagement with ideas and perspectives. Ethical questions should be a part of the discussion as they are often the motivating force for inquiry and essential to the discipline of economics.

Economics as a formal subject is introduced at the higher secondary level in school. At this point, it should be taught from a liberal arts point of view. Although formal mathematical language is required for precision in the field of Economics, it can come later, in college. In school, the economics course should not be seen as an introductory course for higher level economics, but as a course in economic citizenship.

The Experience of Interdisciplinary Teams and the Use of Ordinary Language for Social Science

Economics is taught in schools at two levels. Some themes in economics are covered as part of Social Science in Classes 6-10, and Economics as an independent subject is taught at the higher secondary level.

If there is one experience that strikes me as significant, it was the opportunity to work with an interdisciplinary author team at NCERT from 2005-2008, to develop the chapters for the textbooks on Social and Political life. This was a reconceptualization of what was earlier called 'civics'. These chapters had to be developed not using an integrated approach, but one that was genuinely interdisciplinary. In an integrated approach, discipline formulation is dissolved, whereas in an interdisciplinary approach, structure is often borrowed from discipline, but a conscious attempt is made to link the themes so that there is overall cohesion. For example, the themes selected for Classes 6-8 for economicsrelated topics were livelihoods, markets and role of government. These had to be meshed with other themes to give a structure to the social and political life chapters.

In order to understand this better, let us examine the chapter on public utilities in the Class 8 textbook. The chapter began by defining public goods in terms of nonexcludable and non-rivalrous consumption, and contrasting it with private goods. It also had a discussion on examples of production and the distribution of these public goods. In the interdisciplinary team discussion that followed the presentation of the draft for this chapter, it was suggested that working with an intuitive notion of public facilities that children are familiar with would be a good strategy. There are many examples from the functioning of municipal corporations and panchayats that could be used to provide a real context. This would allow the students to focus on the ethical question of why the government should be involved in the supply of such public utilities and also in deciding the rules for its distribution. The principles of equity and problems of functioning were elaborated using the case study of the water situation in Chennai in which overall scarcity and unequal distribution could be examined simultaneously. This meshed easily with the overall theme of justice for Class 8 since other chapters discussed the need for a constitution, fundamental rights and duties, judicial systems & process of marginalization in society. Therefore in order to discuss the role of government for the economy in a more formal manner with definitions of private and public goods was not required at this stage.

In another chapter in the Class 8 textbook, there was a discussion on the central role of the government in regulating economic activities. This was largely done using the example of law implementation; the chapter focused on the importance of implementing existing laws as well as making new laws to protect the rights of workers, consumers and producers in the market. The Bhopal gas tragedy was discussed as an example of lack of enforcement of existing laws and the need for new laws. The idea was to discuss that markets always work within a regulatory framework of the country and its ability/inability to enforce laws. Encouraged by the interdisciplinary nature of the team, we could use an emotive example that everyone could relate to and examine controversial issues in a balanced way.

For Classes 9 and 10, there were separate teams to develop the course content for history, geography, political science and economics. It was agreed by the interdisciplinary team that economics would be presented in everyday language as a set of themes under the broad rubric of "Understanding Development". Unlike most textbooks of economics, we did not want to include an introduction to micro and macro economics. Further, we wanted the arguments to be presented in a manner in which they would be comprehensible to any high school student who was acquainted with reading and interpreting tables and simple graphs. The mathematical pre requisite was agreed upon by the team (Bose & Sardana, 2008). For example, a theme such as globalization in the chapter on understanding development would discuss the idea of greater trade opportunities in today's world; the impact of technology in facilitating production and distribution at multiple locations; and the role of MNCs in world trade.

The classroom observations showed that students could follow the arguments and relate to the case studies. In hindsight, I would like to add that although the arguments were presented in nontechnical language and appeared to be pitched at a reasonable level, an inter disciplinary approach would have added greater value. Further, a connecting historical chapter to compare the process of globalization in different periods in the 20th century would have given a more nuanced view of the present phase of globalization.

With respect to a theme such as poverty, the data essentially lies in the economic domain. While this provides a broad view and backdrop to the anti-poverty programmes, what appeared to be missing in the classroom follow-up was a discussion on ethical issues. This should have been forefronted. Stereotypes such as poor people are lazy and do not wish to work, or that poor people need to be "educated" about hygienic conditions abound. My colleague pointed out in her research study, using the feedback of classroom situations in some schools in Delhi that

Poverty as a theme harbours a large number of preconceptions and stereotypes that are at odds with disciplined forms of understanding. These prior notions are often very stubborn and require repeated questioning and sound reasoning in order to be replaced. (Bose, 2013, p. 377)

Hence ethics, discussed in ordinary language, should find a more central role in the discussion on economic ideas. Data and measurement issues require to be interwoven alongside. However, instead of following an interdisciplinary approach, the social science disciplines have more or less operated in their own silos and therefore need to talk to each other (Srinivasan, 2015).

Our experience of working in other states also indicated that a dialogue with the teachers to identify the aim of the chapters and devise small projects suitable for local areas has great potential. It energizes both the teacher and the students as it provides a stimulating way to examine the macro world. The pedagogical challenge at high school level is to imagine how from data, case studies, or local surveys, children can arrive at a macro view point that is necessarily abstract. One example of doable small projects is the survey carried out by economics teachers in a few schools in Chhattisgarh. Students were asked to gather information on the BMI status of the children in their school. This was in the context of a chapter on food security. The survey revealed alarming levels of under nutrition among high school students in the school, so much so that the surveying students & teachers

felt motivated to find ways to address the situation (Ramani & Sardana (in press)).When students do projects based on the ideas discussed in the text in nontechnical language, the learning and insights gained are very different. It is evident that what is required for teaching economics at this level is:

- a thematic approach
- presenting arguments in ordinary language
- using an inter-disciplinary perspective
- fore fronting ethical issues

The NCERT as well as the departments of education at different universities that have people from different disciplines as faculty of education should create a culture of working on such themes together to create teaching-learning resources. There are many examples of such collaborations world-wide. See for instance an older textbook, "People, Places and Change", Berry & Richard (1976), authored by a team of historian and geographer. This is an introduction to world cultures for school students. It uses carefully crafted case studies to discuss the geographical location of the country, the impact of the past such as colonial history and the dilemmas & aspirations of people in relation to development.

Controversy at the Higher Secondary Level: Mathematics as a Formal Language

Economics as an independent subject is taught only in higher secondary school, in Classes 11 and 12. The syllabus covered in the NCERT Economics textbooks includes: Indian economic development, statistics for economics and introduction to micro

and macroeconomics. There has been a raging controversy around micro and macroeconomics. When these books were launched the teachers had protested, saying that these books are not useful for students and are too mathematical. Extensive use of algebraic expressions and equations was the sore point, leading to a situation where for almost a decade these NCERT books have not been used in schools. At the heart of the controversy was the use of mathematics as a formal language for economics. The academic author group responded by saying that teachers were avoiding rigour and trying to stay within their comfort zone.

This controversy was not resolved by CBSE. In fact, it issued guidelines that allowed schools to use books that were "as per NCERT syllabus". The implications of issuing these guidelines was that instead of using the new NCERT books, schools started using books by private publishers which follow the older pattern. In these private books, chapters on micro and macro economics are explained with a defined set of exercises that largely make use of geometry and simple examples. In contrast, the new NCERT books use a fair amount of algebra. Further, the new textbooks present concepts in an accurate, careful and precise manner, even though conceptually, they are a bit concise. Also, there are fewer explanations of the concepts and terms in ordinary language than expected by the teachers. On the other hand, books by private publishers use lots of examples and also focus on the questions asked in the Class 12 Board examination. This undoubtedly reinforces their content. Responding in an academic manner. NCERT organized a seminar on Economics Education in Schools. One of the important ideas suggested was to reduce the emphasis on algebra and allow the students to find meaning of the terms used relating these to everyday examples from real life.In his keynote

address on "What is the core of economics?", Amit Bhaduri highlighted the need to revisit the nature of the discipline and draw lessons for the contemporary stand-off. He was suggesting that we need to relook at the theory being taught to beginner students and select appropriately. According to him some of the things that we teach are false precision or a special case scenario. It would be better to select fewer ideas and apply them to real life situations. However, no concrete steps were initiated. The fact that CBSE by-passed this issue, calls for the need to set up a protocol between NCERT and CBSE. It is wrong that textbooks are developed by NCERT, assessment pattern are set up by the CBSE and teacher training is left to the respective school units. For any sensible classroom process, all of them need to go hand in hand. As there is no synergy between these institutions, no reform can take place.

Reasoning in Ordinary Language or the Use of Formal Mathematics for Economics?

There are strong views regarding this dilemma of the language of Economics, which emanate from how the nature of the discipline is conceived. What is economics? As Chakravarty (1986) points outs, one school of thought considers economics as a pure science subject. According to this school of thought, only those with formal training in mathematics should be selected to study economics. Chakravarty, however, considers the subject as partly "engineering" and partly "reasoned history". He therefore suggests that multiple perspectives should be accepted, and that students should be exposed to the diversity of reasoning available in economics. This becomes even more important in the Indian context since the nature of capitalist development is different in India, compared to the west. Here large number of small family farms, craft forms of production using family labour, caste & feudal relations provide a different background for economics.

These ideas were expressed in the context of university courses for economics, not for school education. If formal training in mathematics is considered essential at the school level, then only a small set of students, those who take higher mathematics at school would be able to take this course. This would be a pure science view. The alternative is a liberal arts view. This course may be seen as a meaningful introduction to contemporary economic issues. At one level, this is an attempt to expose students to economic theories to understand how they help to analyze the current economic issues faced by the Indian economy. I would favour such a view and that economics as a subject at school could be taken up by any student, whether from arts, commerce or science streams. In the above scenario the unstated assumption is that arguments expressed in ordinary language would be the basis for teaching and higher mathematics would not be an essential pre-requisite.

The liberal arts view also resonates with our expectations from our future citizens. How can they be informed and critical of the many faceted analyses offered by the media and other experts? Cambridge economist Chang (2011) strongly argues in favour of explaining economic ideas in a language that can be understood by all. He says that it is not necessary for everybody to understand the technical details in order to understand what is going on in the world. Instead, he advocates the use of what he calls"active economic citizenship", to demand the right course of action from those who are in decision-making positions. Most of the essential principles that govern the field of economics can be explained in plain terms, and the best way to learn economic principles is to use them to understand contemporary problems that interest the reader. This view would match the courses in history, political science and sociology where understanding contemporary social & political institutions for India is a focus.

Arguing in a similar vein Bhaduri (2010, p. 8) explicitly says, "Mathematics doesn't tell you something you could not tell in words; what it does is to say the same thing far more precisely. And precision makes it easier to pinpoint differences in assumptions and conclusions that logically follow."

To be able to understand, and more importantly engage with or discuss economics, it is not essential to have studied mathematics in school. In fact, it can be a hindrance since the focus is on the math rather than the underlying ideas. The liberal arts approach emphasizes on history and the real working of institutions to discuss economic ideas. Even if we were to look at examples from science pedagogy, it is the explanation of concepts in plain terms that kindles the spirit and explains the basics. In his book Conceptual Physics, Paul Hewitt (2017), argues that it is best to bring in the application of formulas later. It is the focus on understanding the ideas in ordinary language, which builds the conceptual base. Economics should look at this as a role model for teaching. Recent introductory economics books by Omkarnath (2013), Dasgupta (2007), and The Core Team (2017) should encourage us towards alternative conceptualizations of economics for school students. It is a mistaken notion to consider that writing in plain language cannot be intellectually challenging and analytically rigorous. The present CBSE syllabus for Class 11-12 falls between two stools. Indian Economic **Development & Statistics for economics** books are closely related to a liberal arts approach, whereas Introduction to micro and macro Economics follow the rigorous mathematical approach. To summarize, for school students, economics is best explained in ordinary language and with reference to problems of the real world. Mathematics for precision can come at the college level. In this way, there will be motivation, imagination and excitement with regard to the subject. The study of economics in school should not be linked to whether the students will later study economics in college. This should be seen in a larger context as a course in economic citizenship.

References

Berry, Leonard, & Richard, Ford B.(1976).*People, places and change: An introduction to world cultures.* New York: Holt, Rinehart and Winston.

Bhaduri, Amit. (2010). What is the core of economics? Bhopal: Eklavya.

Bose, S. (2013). Teaching poverty: A poverty of perspective. *International Journal of Pluralism and Economics Education*, 4(4), 371-386.

Bose, S., & Sardana, A. (2008). Teaching economics in schools. *Economic & Political Weekly*, *43*(32), 54-60.

Chakravarty, Sukhamoy. (1986). The teaching of Economics in India. *Economic & Political Weekly*, *21*(27), 1165-1168.

Chang, Ha-Joon. (2011). 23 things they don't tell you about capitalism. London: Penguin.

The Core Team.(2017). *The economy: Economics for a changing world*. Oxford: Oxford University Press.

Dasgupta, P. (2007). *Economics: A very short introduction*. New York: Oxford University Press.

Hewitt, Paul G. (2017). Conceptual physics. New York: Pearson.

Omkarnath, G. (2013). *Economics: A primer for India*. New Delhi: Orient Blackswan.

Ramani, A & Sardana A, (in press). Malnutrition among high school tribal students in selected blocks in Chhattisgarh. *Journal of Indian Education*.

Srinivasan, M. V. (2015). Reforming social science curriculum in India. *Economic & Political Weekly*, *50*(42), 52-58.

Developing Acquaintance with Mathematical Disposition via Language

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Key Words: Language of deduction, Uniqueness of symbolic hierarchy, Use of imperatives.

Abstract

This article is about the different ways in which language contributes towards having a disposition towards mathematical thinking. In the article, I have drawn attention to the usage of phrases that determine mathematical thinking. I have also discussed the use of conjunctions in developing reasoning skills; the peculiarity of mathematical grammar, which, despite being syntactically rigid, carries traits of effective communication; and finally, how language acts as a regulator in assigning specific roles to people participating in a mathematical act.

Language practices in mathematics classes are particularly interesting as they set a tone for building a mathematics-specific mode of thinking, upon which the foundation for higher mathematical thinking gets established. In a mathematics class, the use of language is not about learning new words or symbols; rather, it is related to the preciseness and care with which the phrases are chosen, that give meaning to the nature of doing mathematics (Sfard et al., 1998) which traditionally, and most commonly relies on logical deductions. When a teacher demonstrates the process of formulating an idea, or shares the journey to reaching an answer, or makes logical connections between the arguments that lead to a proof, she/he conveys deeper messages of what construes mathematical practice. In this article. I will attempt to map how mathematical texts and classroom discourses form tools that induct students into understanding the nature of mathematics. I will also elaborate on the use of language in promoting mathematical ways of thinking. The dialogical means that are adopted in the mathematics classrooms for communicating play a crucial role in perceiving mathematics as a discipline. I intend to share the denseness with which certain terms are used in the mathematics classrooms that bring out (knowingly or unknowingly) the tenets of mathematical thinking. Language is generally considered as a pre-condition to learning. Specific to mathematics, we have ample evidences stating how a gap in language leads to a gap in doing mathematics. Often students are seen grappling with word-problems, expressing their inability to convert word sentences into symbolic form, and owing to limitations in their comprehension, they make mistakes or are unable to form mathematical statements. Indeed there is no argument in stating that language plays a crucial role in learning mathematics and a lack of comprehension leads to lower learning

levels. All such instances, where inadequacy in language becomes a deterrent in learning mathematics are considered as issues of "language in mathematics".

Another aspect that demands attention is how communication that takes place in a mathematics classroom, i.e. the language "of a mathematics classroom". Classes in which learners are given the opportunity to talk, express their thoughts, speak about how they work things out, make conjectures based on their understanding, and justify their work by providing convincing arguments, contribute towards making learning meaningful (Boaler, 1999; Humphreys & Parker, 2015). However, the kind of communication that is helpful in making a mathematics classroom "mathematically meaningful" is hardly given the attention it deserves. The type of communication that carries mathematically generated meaning and how it unfolds in classrooms also need to be mentioned.

Disposition towards what it means to be 'doing mathematics' comes as an embodied practice by the virtue of acts that happen in the classroom. With children, these dispositions get established through the textbooks, teachers' style of presentation, and communication that take place in the classrooms. For example, a mathematics teacher whose vocabulary is limited to using words such as solve, find, etc., gives the impression that mathematics is a closed subject in which the sole purpose is to solve problems and get an answer. In contrast, a teacher who encourages children to speak, explain, formulate, demonstrate, rationalize their work, gives the impression of mathematics as being a creative subject. It is indeed interesting to see the kind of communication that takes place in a mathematics class as it has a unique characteristic which establishes the specific way of presenting the arguments and peculiar syntactical framework of symbols. In this paper, I will share the role of language in bringing out the nature of mathematics in a

mathematics classroom. The peculiar nature of communication that takes place in a mathematics classroom contributes towards the development of mathematical thinking in the learners. I will also discuss how language acts as more than just a tool for communication. In mathematics classes, language also becomes the basis for building structures of logic, concepts and ideas. Given here are three examples to demonstrate how language implicitly establishes a disposition towards doing mathematics: 1) use of conditional conjunctions to establish logical reasoning, 2) uniqueness of mathematical statements and the layers of hierarchies therein, and 3) use of imperatives to assign roles to participants participating in a mathematical act.

Conjunctions as Determinants of Reasoning Skills

An important aspect of thinking mathematically is to have the ability to make logical relationships in an analytical manner. Deductive reasoning enjoys a high status in mathematics, and it is worth noting how reasoning is constructed in a mathematics classroom. In fact in Mathematics there are specific conjectures that demonstrate the presence of logical reasoning. These include: use of verbs such as x implies y; use of nouns such as the reason behind this is...; use of prepositions such as two angles adjacent to each other; use of conjunctions such as if the chord is the longest in the circle, it is the diameter. These statements epitomize mathematics as a deductive subject, one in which logical affiliation between mathematical elements (idea, concept, equation or a mathematical clause) is an

essential ingredient. Establishing relationships between the different mathematical elements is an essential characteristic of doing mathematics.

Doing mathematics in a deductive sense involves a sequence of reasoning. A claim has to either be an assumption or it must be deduced from previously established claim/s. The deductive reasoning of mathematics is conveyed by the use of conjunctions such as "if and only if", "by theorem 1", "hence", and "therefore". Conditional conjunctions are often used to form logical implications and linkages between mathematical elements in a structural manner. By examining the type of conjunction that is used, one can get an idea about the kind of reasoning used. As an illustration: when two clauses A and B are connected by the conjunction "iff" (if an only if) it implies that there is mutual coexistence of clauses A and B. That is. both clauses A and B are dependent on each other and are necessary and sufficient for their existence. On the other hand, using the conjunction "If...then" ascertains the necessity of clause A for the existence of clause B. Such conditional conjunctions serve as pegs on which deductive arguments are placed. Working and being comfortable with such conditional statements denotes the beginning of thinking mathematically.

Inherent Symbolic Rigidity: Layers and Hierarchies

Mathematics has a highly structured way of presentation. In fact, to some extent it can even be said that mathematical notations follow a rigid syntax of writing. A salient feature of any mathematical equation is in the correct positioning of symbols in a fixed format. A close look at the syntactical pattern of any mathematical statement will reflect the sophisticated layering of symbols therein. Doing mathematics means to be familiar with the relationships between the symbols (or objects) and to be able to effectively work with them. The structure is so rigid that people who fail to follow it tend to fall out. The BODMAS rule for solving complex mathematical expressions is one such example. As you would remember, in school we were taught that to simplify expressions such as 45 - 2(18 + 12 » 3 x 4 - 5 x 5) + 10, we need to use the BODMAS rule. That is, you begin by working with the numbers within the Brackets (parenthesis), and then perform the operations of Division, Multiplication, Addition and Subtraction, in that sequence. By not adhering to this rigidly established hierarchy of operations, one is bound to commit mistakes. Students who obeyed the rule excelled in deciphering such complicated mathematical expressions and those who could not, made "mistakes". This inherent logical structure of mathematics sometimes attracts people to the disciple of mathematics, whereas at other times it becomes a major cause of fear.

This symbolic hierarchy however makes things easier for learners. Let me illustrate with the help of an example. To represent the word-sentence, "Square of the sum of a number and its successor", in a correct mathematical form becomes easy provided one is able to place the symbols (including numerals) precisely. A mathematical representation of this word statement will begin by choosing an appropriate letter for "a number" (note that the phrase "a number" falls in the middle of the word statement). In the next step, we need to identify its successor. If the letter p is chosen for the symbolic representation of "the number", its successor will be symbolized as p + 1. (Conceptualizing this idea indeed needs some mathematical acumen). We are now ready to place the symbol for "sum"

between and p + 1. However, a little alertness is needed at this point, since now there will be two "plus signs" bearing two different meanings (one representing "sum" and the other representing "successor of"). Therefore, one must be careful about distinguishing between these two meanings. This can be achieved by appropriate placement of the brackets: p + (p + 1). Finally, we must draw our attention to the first word (i.e. square) of the word-statement and embed the symbol for squaring within the mathematical statement. The mathematical equivalent of the word statement is thus $[p + (p+1)]^2$. As you would have noticed, there is a hierarchy in the symbolization process, which is very eloquently depicted by the mathematical statement. The layers of complexity are not as distinguishable in the wordstatement as they are in the mathematical statement. The conversion of the word statement into mathematical statement also leads to easing the complexity of the word statement. The mathematical expression is much easier to grasp compared to its corresponding word expression. This is the beauty of mathematical statements. They become self-explanatory with by using elements of precision.

Positioning the Participants

Learning everyday words is very different from using them in mathematical contexts. Teachers are often unaware of the connection between everyday words and the technical usage of these words in mathematics classrooms. In fact, their usage determines the role that one plays in a mathematical activity. Further, certain linguistic aspects are also used in math text books to assign the role of the taught and the teacher. Let us look at how imperatives are used in mathematical texts and communication for positioning the various actors involved in a mathematical activity. Imperatives, as we know, set the mode for doing an activity. They may be used in the form of a command, a request or an indicator of working. In Mathematical texts and classrooms, we often come across imperatives such as "consider", "suppose", "solve", "find", "assume", "let x be". These covertly assign a position to various participants in the mathematical activity. They also indicate the relationship assigned to the reader (students) by the author of the textbook or the teacher. In all mathematical texts, such imperatives presume the reader as a doer. Phrasing mathematical language in the imperative mode indirectly assigns people to specific roles, categorizing them as less knowledgeable or more knowledgeable. The use of such imperatives is not something new, as such phrases have instinctively been found in mathematical classrooms and texts. For example, Kang (1990) observed that in his time, textbooks in the US were mostly written with the assumption that mathematical

knowledge can only be taught in a procedural way. He asserts that by explaining things from the perspective of "procedural know-how", one sets the tone of authority, rigidly demarcating the boundaries of the less knowledgeable and more knowledgeable. In other word, when teachers or textbooks state the procedures to be followed, to some extent, they seem to be dictating the established procedures. Any deviation from the established procedures are likely to be termed incorrect. This sets a tone of rigid hierarchy as rule-setters and rulefollowers. Kang (1990) further adds that the responsibility however lies with the teachers to make meaningful sense of such phrases, so as to bring children closer to thinking mathematically. Teachers who encourage building conceptual linkages by letting their children formulate rules add a flair of creativeness to the subject. Teachers must embrace to talking, listening, discovering, conjecturing, and formulating in their pedagogy. Such opportunities will redefine the structure of mathematics classroom, making them democratic.

References

Boaler, J. (1999). Participation, Knowledge and Beliefs: A Community Perspective on Mathematics Learning. *Educational Studies in Mathematics*, 40, 259-281.

Humphreys, C. and Parker, R. (2015). *Making Number Talks Matter*. Portsmouth, NH: Stenhouse.

Kang, W. (1990). *Didactic transposition of mathematical knowledge in textbooks*. (Doctoral dissertation). University of Georgia, Athens, GA.

Sfard, A., Nesher, P., Streefland, L., Cobb, P., & Mason, J. (1998). Learning mathematics through conversation: Is it as good as they say? *For the Learning of Mathematics*, 18(1), 41-51.

What is or is not Common between Mathematics and Language

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Key Words: Mathematics and language, Acquisition of mathematics, Formal mathematics, Mathematical text.

Abstract

In this paper, we explore the commonalties between mathematics and human language acquisition. I will also briefly examine the statement "mathematics' is like a language". The paper points out that while there is a lot of mathematics that surrounds the child in her interaction with the world, its learning and the extent of its exploratory use by the child is not comparable to the possibilities that exist for languages. While it is broadly accepted that language learning is in some sense hard wired, for mathematics, it is still an open debate. The paper argues that mathematics is not like a human language, even though there appear to be some common features.

Introduction

There is enough evidence to suggest that children acquire many ideas and develop many abilities from the world they are growing up in. These abilities may differ in specificity, but they have certain broad patterns, and are generally acquired by most children. There is a consensus that the mind of the human child has an astounding capacity to learn. Further, the child learns naturally to absorb, understand and act on the world that she grows up in and develops the abilities that enable her to deal with what happens around her. While the discussions around this whole process are extremely enriching from an anthropological, sociological and human developmental perspective, but that is not the topic of this article.

This article addresses two common aspects shared between mathematics and language. The first is in the manner of development and the nature of mathematical abilities that a child acquires by interacting with the world in the initial years, and its relationship with the seemingly concurrent development of language and thought. The key elements of acquisition of language and thought are generally accepted, while those for mathematics are contentious and hotly debated. It is also noteworthy that the distinction between naturally acquired learning, and learning added through teaching has to be kept in mind. The second aspect discussed is around mathematics as a language; why on the surface it can be considered as a language, and yet is actually very different, and hence not as easily accessible. We begin with a discussion on the first aspect.

Acquisition of Language and Mathematics

Generally, a child 3-4 years in age is a linguistic adult. This means that a child of that age is able to participate in conversations, engage in any linguistic task that requires competent use of language, and have the ability to continue to learn and grow. However, she will be unable to engage in a conversation if the context or the ideas discussed are obscure and irrelevant to her.

The acquisition of language described above involves learning by absorption, participation and engagement, but at the same time is also hardwired into the human mind. All human beings develop this ability through interaction with other human beings, in not just one language but in the multiple languages used around them. The underlying abilities for this acquisition go beyond the basic syntax and include semantic elements, context and culture. (Aitchinson, 1976; Jayaseelan, 2010; Agnihotri, 2014).

Concurrently, the ability to construct logical formulations dependent on the context develop, and this gradually evolves to more complex formulations. Abilities such as abstraction, imagination, pattern recognition, generalization and participation in conversations about the then non-present in immediate context develop alongside. Further, many mathematical ideas such as numbers, size, shape, distance, spatial location, direction, translation, rotation, causeeffect relationship, choosing categories, sorting, and so on, also emerge (Dewan, 2009; Dewan & Ashok, 2010). This is a very brief illustrative list of the abilities that get developed, and many more could easily be added.

For our purposes, we will look at mathematical terms such as appreciation of numbers, spatial transformations, spatial locations, and relations and transformations. The understanding of the nature of these ideas and the manner of their acquisition has not been discussed as much as acquisition of language. Yet, it is clear that a large part of abilities that are central to building the foundations of mathematics, are acquired through interaction with the world. Even though there are many heated debates around the possibility of mathematical ideas being hardwired, the use of some mathematical ideas is naturally acquired by all children (Cepelewicz, 2016). We will discuss this in more detail in the next section.

The Acquisition of Mathematics

By the age of 5, a child acquires the following: a basic number sense including the ability to compare, add, and subtract from a set and a sense of sharing of parts, and of space and spatial relations. In her interaction with the world she is forced naturally to continually apply all these ideas to the world sharpening and developing these further. Her increasing grasp of these ideas improves her ability to engage with new situations to creatively designs new experiences and interconnections. This further challenges her and extends the ability of her mind to visualise and organise. With her growing spatial abilities she manipulates objects better and is able to engage with tasks that require fair amount of transformations and estimations. She manipulates objects better, and engages with more complex transformations. The child is able to identify connections, common forms and patterns, and imagine consequences of operations and transformations better. The generalized

abstract categories and relationships among them also nebulously emerge. She can construct and follow simple logic. There are contrasting positions on whether this is hardwired or culturally learnt. Butterworth (1999; 1999) and Zimmerman (2009) argue that mathematics is hardwired, with Zimmerman claiming that it has not only evolved in neurons of human being, but even in those of monkeys also. Dehaene (1997) adopts a similar stance about mathematical abilities. Nunez (2016) on the other hand argues that mathematics is not hardwired and is learnt culturally. A detailed exposition of Nunez's views will require a separate article. It may be argued that much of what is learnt is in context of real situations, and hence is not what is considered as formal mathematics. Even so, this ability to deal with mathematical ideas at the age of 5 years indicates that a human child is intrinsically capable of acquiring initial mathematical ideas somewhat similar to the way that she acquires language. The development of these mathematical abilities through new exposure and new opportunities structures the way she looks at objects, events and phenomena around her, and helps her to plan and build better strategies.

Extending and Growing Abilities

The development of language ability is intertwined with mathematical abilities such as number sense, space visualization, spatial and other relationships, and other such ideas. As the child recognizes new shapes, new transformations, new combinations, new operations, new patterns and new relationships, she hunts for appropriate words. If she is not able to find such a word, she constructs new expressions for them. The development of language, therefore, overlaps with the development of mathematical ideas and vice versa. It can be reasonably argued that once articulated and expressed, ideas can be used and constructed upon much more effectively and in much wider contexts.

The Extent of the Acquired Knowledge

There are two competing claims as far as language acquisition is concerned: one, the human brain is hard wired for it; two, it is acquired through social and cultural interaction with the society/community. The more popular view is that there is a confluence (combination) of both claims that leads to acquisition of language. The case for mathematics however is far less settled. What we know is that some basic mathematical abilities sufficient for routine interactions at home and at play, develop in the human child as part of growing up (Adanur et al, 2004). But that does not address the issue whether mathematics is hardwired or socially learnt. Besides this, the linguistic and mathematical abilities that develop through interaction with the community are not what may constitute formal knowledge in these areas. Formal knowledge of language also requires the ability to formulate coherent text, to read and write, to decontextualize and be able to abstract, etc. Yet, unlike mathematics. for language there are opportunities outside the classroom to extend exposure and stretch to newer challenges to increase learning. Culturally transmitted efforts to create and challenge each other with logical puzzles related to mathematics have declined, but they were in any case never comparable to the natural opportunities available for languages. In any case, the mathematical puzzles were also rooted in language, and this also went towards building the ability in language.

Mathematics, acquired by children in the absence of teaching, does not include dealing formally with numbers or spatial relations. It is unclear if this can be attributed to the type of exposure or is due to the very nature of this formal knowledge. We wonder if like language, acquisition of such mathematics ideas closer to formal concepts, would naturally happen in a community that uses more mathematics. And also would initial mathematics become more difficult to learn if learner interaction with it starts late.

Is Mathematics a Language?

The other issue we discuss is the statement that mathematics is just like another language. The academia is again divided on this issue. The related discussion is intense, and involves the very notion of mathematics itself. On the face of it, we can see many points that seem to suggest that mathematics is indeed like a language. For example mathematics, like any language sets up some basic elements, and then builds a description around it. Unlike science, social science or humanities, it does not analyse reality, but just describes it or provides the tools for dealing with ideas in different areas of study and inquiry. The basic elements in both comprise of abstract constructions. The other point of similarity between the two lies in the written symbols. We write a mathematical statement using symbols "just like" we write statements in language. Consider a statement " x^2 is equal to y for all values of x, y that are real numbers other than the value zero for x". This can simply be written as: $x^2 = y [\forall x, y] \in \mathbb{R}, x \neq 0$]. This statement is written using mathematical symbols and has the same content, but it is far crisper. The symbols used in the mathematical form of the statement $=, \forall$ \in , \neq , R have precise meanings. Let us look at another example: $(x + a)^2 = x^2 + a^2 + 2ax$

This is a general statement true for all x and a. We can add $\forall x, a, \in Q$ (or any other set even (the set of complex numbers). It represents all situations and contexts where we need the square of the sum of two numbers. Such an equation could arise if the side of a square is increased, and we want to find the area enclosed by the new square in relation to the area of the smaller square. It can also arise in other contexts. The statement, as it is written, implies that whatever be the nature of x and a, the statement would hold only when we can consider ax = xa. The surface similarity between written language texts and mathematical texts is that they are both constructed using elements which can be joined together in a rule-governed manner to produce meaningful statements. The set of rules that govern their combination is specific to each of them. While each specific language uses a consistent set of rules, the rules across different languages maybe different. There are strong arguments that posit an underlying common set of rules for all languages. However, these express themselves differently in different languages. Some of the rules explain how sounds are joined together to make meaningful expressions. The words themselves have meanings, but when joined together, they can make intelligible expressions consisting of sentences. We consider each sentence to be saying something and hence being a statement, provided it is appropriately and meaningfully constructed. The meanings of these sentences have variations and slight nuances of interpretation, which are dependent on the reader. For mathematics, the rules are more universal than for languages. These rules have no exceptions and their application does not depend upon any aspect of the context in any manner. Even though mathematical statements can be said to be constructed in a manner similar to language statements as they use symbols and are imbued with meaning, but unlike language, the meaning of mathematics

texts does not change with the reader. A written language text uses as its basic elements alphabets that represent sounds. It is different from a spoken text as it lacks the tonal and gestural hints, leaving space for different interpretations. A mathematical text uses symbols that are imbued with meaning. For example:

- ∈ Stands for belongs to
- ∀ Stands for all
- \rightarrow Stands for tends to
- \Rightarrow Stands for implies.
- \Leftrightarrow Stands for If and only if (iff)

There are many more such symbols, which are used to make statements and texts that must be read in the same manner. Using a few given symbols, many generalized statements can be easily written for elementary classes. For example, for any two natural numbers, the product is not smaller than any of the two numbers; or, the statement that the product remains the same whatever be the order in which we choose to multiply any two numbers. For these we have to only write:

$$\begin{aligned} &n_1 \times n_2 = n_2 \times n_1 & \forall n_1, n_2 = \in \mathbf{N} \\ &n_1 \times n_2 \ge n_1, n_2 & \forall n_1, n_2 \in \mathbf{N} \end{aligned}$$

In calculating and writing out the sum of n contiguous natural numbers starting from 1 again, the sum can be written as $\frac{n(n-1)}{2}$.

This is the sum of all natural numbers from 1 to n. In one small expression, we have written the sum 1 + 2 as 3, and 1 + 2 + 3 as 6.

Further, 1 + 2 + 3 . . . + 7 as 28 and so on.

We can also write a mathematical text to show how this works out.

Let
$$1 + 2 + n = \frac{n(n+1)}{2}$$
 (1) $\forall n \in \mathbb{N}$
 \Rightarrow We have to show
 $1 + 2 + \dots + n + n + 1 = \frac{(n+1)(n+2)}{2}$

Add n + 1 to equation (1)
1+2+ + n + (n + 1) =
$$\frac{n(n+1)}{2}$$
 + (n+1)
= $(n+1)\left[\frac{n}{2}+1\right] = \frac{(n+1)(n+2)}{2}$

We can give many such examples, and as the situations and the ideas become more difficult, the texts also become more complex. Algebra is therefore sometimes also called generalized arithmetic, even though it can be considered to be more than that. The texts describing the sum of consecutive natural numbers indicate the brevity and the power of expressing many arithmetical statements as a single algebraic sentence. Let us look at the generalized form of a rational number and the sum of rational numbers, for example:

$$Q_{1} = \frac{(I_{1})}{I_{2}} \qquad [\forall I, I_{2} \in I, I_{2} \neq 0]$$

$$Q_{2} = \frac{(I_{3})}{I_{4}} \qquad [\forall I_{3}, I_{4} \in I, I_{4} \neq 0]$$

$$Q_{1} + Q_{2} = \frac{(I_{1} I_{4} + I_{2} I_{3})}{I_{2} I_{4}}$$

$$Q_{1} \times Q_{2} = \frac{(I_{1} I_{3})}{I_{2} I_{4}}$$

The idea of limit, range, coordinate or solution set, functional relations and other such concepts require detailed expositions. When using them, care has to be taken in the choice of each specific term used. A mathematical text, whether represented in the form of words and sentences, or through symbols, has to be precise. It cannot have the ambiguity or the creativity of the texts that comprise literature. We know that a great composition is not always a detailed text. It need not for example be a description that is vivid and detailed, elaborating emotions, feelings and interactional details in a manner that binds your attention. It could be an extremely brief text that is composed in a manner that makes it pleasurable and meaningful. This text as well as the detailed text

mentioned earlier however, can have many interpretations and different people can infer different ideas from it. Literary classics for example are texts that offer contextual and personal meanings. Sometimes the briefest texts, organised in small couplets, can have numerous rich explanations and can be interpreted and reinterpreted. Mathematical texts on the other hand are great when they are concise, precise and unambiguous. Their interpretation and application cannot vary for different readers. The beauty of a mathematical text is not in its detail and description, but in its brevity. Texts in mathematics are thus more difficult to comprehend as they are written using specific symbols, and can also be about entirely abstract objects and the relationships between them. Apart from the brevity and the form, the content of what can be expressed in mathematical terms is also restricted. For example, content that deals with emotions and qualities is difficult to put in mathematical statements; and texts describing complex phenomena in the natural world are difficult to be put down without the use of mathematical language.

To Conclude

There is a lot of mathematics that takes place in context and we can use such examples to help children use more of it in their lives by making the use of these ideas more systematic and organized.

We can also give them tasks and problems that are designed to extend the connections they have formed, and widen their conceptual base. Not only can this enable them to use these ideas in new situations, but it will also help them to view the world with a sharper lens of mathematical ideas. This, however, cannot become formal mathematics unless the objects used in the description, manipulation and analysis are carefully defined and interpreted abstract entities. Mathematical objects are defined and understood very carefully and cannot invoke different meanings. In that sense therefore, mathematics has a very specific lexicon which is without any synonyms or ambiguity. It uses specific symbols that have clear meanings, and a specific syntax that is determined by the logic of mathematics and entirely driven by its meaning in the mathematical sense. Many of the terms used in formal mathematics are not used in everyday mathematics. The logical forms that are used to arrive at the answers are also different from those used in context. In mathematics these forms are sought to be made generalizse, devoid of context,

precise, brief and universal for all users. In that sense, mathematics as a language is different from the languages of community and literature. Further, in the learning of mathematics, the key challenge is how to formalize one's thought (for example in going from intuitive rates of change to calculus). The nature of constructions and form of expression changes far more radically in mathematics then it does in languages. The teaching-learning of mathematics and improving one's ability to use mathematics as a tool to understand and describe the world therefore requires to be rooted in the experience of the learner, with an effort to wean her away from the context. For language, this contextual rooting is more natural and hence more likely to be present.

References

Adanur, Y., Yagiz, O., & Isik, A. (2004). Mathematics and Language. *Research in Mathematical Education*, 8(1), 31-37.

Agnihotri, R. K. (2014). Multilinguality, education and harmony. *International Journal of Multilingualism*, 11(3), 364-379.

Aitchison, J. (1976). *The articulate mammal: An introduction to psycholinguistics*. London: Rutledge.

Butterworth, B. (1999). *What counts: How every brain is hardwired for math.* New York, NY: The Free Press.

Butterworth, B. (1999). The mathematical brain. London: Macmillan.

Cepelewicz, Jordana. (2016, April 12). *How does a mathematician's brain differ from that of a mere mortalfl* Retrieved from https://www.scientificamerican.com /article/ how-does-a-mathematician-s-brain-differ-from-that-of-a-mere-mortal/

Dehaene, S., (1997). *The number sense: How the mind creates mathematics*. London: Allen Lane.

Dewan, H. K. (2009). The capability of the child. Learning Curve, 12, 6-9.

Dewan, H. K., & Ashok. P. (2010). About learning Maths. In R. K. Agnihotri & H. K. Dewan (Eds.), *Knowledge, language and learning* (pp. 243-253). New Delhi: Macmillan.

Jayaseelan, K. A. (2010). Knowledge of language: The Chomskyan perspective. In R. K. Agnihotri, & H. K. Dewan (Eds.), *Knowledge, Language and Learning* (pp. 79-84). New Delhi: Macmillan.

Núñez, Rafael. (2016). How much mathematics is "hardwired," if any at all: Biological evolution, development, and the essential role of culture. In Maria D. Sera, Michael Maratsos & Stephanie M. Carlson (Eds.), *Minnesota Symposium on Child Psychology: Culture and developmental Systems: Vol. 38*. Maitland, John Wiley & Sons, Retrieved from http://www.cogsci.ucsd.edu/~nunez/web/ Nunez_ch3_MN.pdf

Zimmerman, C. (2009, November 17). The brain: Humanity's other basic instinct: Math. *Discover: Science for the Curious*. Retrieved from http://discovermagazine .com/2009/ nov/17-the-brain-humanitys-other-basic-instinct-math.

Literature for Literacy: Strategies for Critical Thinking in the Classroom

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Key Words: Critical literacy, Literary analysis, Interpretation

Abstract

In this paper, I have tried to outline strategies that can be deployed in the classroom to enable critical literacy among students. Drawing on recent definitions of literacy that expand the scope of the term to include critical thinking skills and analytical competence, the paper discusses the methods for transacting literary works in a constructionist manner in the classroom to enable active meaning-making by students. To this end, I will discuss the way M. H. Abrams' four coordinates of literary criticism—the artist, the universe, the audience and the work—can be used as the cornerstones of interpretation by teachers, as they source additional materials to help students generate individualized interpretations of various works in the classroom. This method also enables deep reading of texts and a personalized engagement with creative works, that results in critical thinking. On a WhatsApp group comprising students and teachers of language and literature of which I am a part, there arose a discussion recently on how to interpret A. K. Ramanujan's poem "The Black Hen" (1995). Participants offered various interpretations of the piece, that ranged from an analysis of individual words such as "red eyes" and "stitch", to speculations on the larger meaning and theme of the poem. From a methodological perspective, the discussions begged a reflection on what the act of reading entails and how we, as educators, can intensify critical, analytic and interpretative thinking in our classrooms. These remain crucial aspects of literacy. In this paper, I will attempt to unpack some of these ideas by exploring ways in which literary works can be transacted engagingly in our classrooms to enable critical literacy. This is possible by inculcating deep reading practices to help students think and interpret (literary) texts critically.

Understanding (Critical) Literacy

Recent studies in literacy have expanded the scope of the term "critical literacy", to encompass critical and analytic competence. Language is a discursive space that constructs knowledge. Literature likewise constructs worlds through words. There have been, in the last two decades, numerous grounded discussions on the merits of studying literary works in the classroom, as part of literacy practice. Some of its proponents are Paulo Freire, Bell Hooks, Gayatri Spivak, Louise Rosenblatt, Elaine Showalter, Martha Nussbaum and Umberto Eco, among others, who argue in favour of literature, declaring that it has the power to expand the imagination, nurture critical and analytic skills, lateral

thinking and empathy. Freire, for instance, connects reading of the word with an interpretation of the world (Freire, 1970).

Studies in new and critical literacy also approach it as a competence that enables us to read, write, listen, speak and think (emphasis added) critically (Stephens, 2000). Critical thought, central to literacy, is seen as an active, dialogic process of constructing knowledge. Agency and voice emerge as crucial factors, promoted by critical literacy practices (Sperling, Appleman, Gilvard & Freedman, 2011). Supporting the aims of critical literacy entails exploring the strategies for transacting texts in the classroom in a way that promotes justified selfexpression. Louise Rosenblatt's transactional theory of literature offers one way of approaching the nature of exchange between the reader and the text that can enable critical interpretation in students. Rosenblatt argues that exploring literary works requires a deeper engagement of the reader with the text, which leads to formulating opinions and creative interpretations that embody acts of agency (Rosenblatt, 1938). Maryanne Wolf's criteria (as cited in Richardson, 2014), of deep reading that requires the reader to slow their pace and savour the meaning of a text in greater depth also advocates the need to eschew distraction and read deeply. How can we enable these acts of agential interpretation in the classroom?

The Four Coordinates of Literary Criticism

In the discussions on "The Black Hen", a predominant concern was to decipher what the poem was about. The participants' responses focused on what the poem said about the craft of creating poetry. Though the explanations were valid, they did not capture the complexity of the work sufficiently. "The Black Hen" is dense and layered with multiple meanings; it is connected deeply to Ramanujan's musings on the nature of poetry, magic and craft. In fact, it lends itself to being read as a personalized statement of the poet on these themes. Phrased differently, we can ask, "What does 'The Black Hen' signify?" What kinds of specific information must we seek to engage in a critical analysis, appreciation and interpretation of the work?

M. H. Abrams, in The Mirror and the Lamp (1953), presents a grid where the work, placed at the centre, is surrounded by the artist, the audience and the universe as the three points of a triangle (Abrams, 1953).

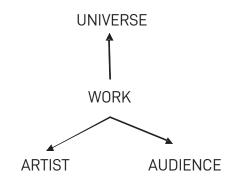


Figure 1. This figure illustrates Abram's grid.

For Abrams, these coordinates comprise the four cornerstones of literary analysis and criticism. Between them, they cover the structure of the work, its biographical criticism, its socio-cultural critique and reader-responses in the act of meaningmaking. Drawing on this framework, I would like to propose a method of literary analysis that talks to Rosenblatt's transactional theory of literature, emphasizing on interpretation through a holistic reading of a text to help us become active participants in meaningmaking. Abrams' coordinates illustrate the way the form and content of a work are influenced simultaneously by the context (world) in which the work is

situated, the circumstances of the artist who created the work and the perspective of the audience who read the work.

Let us take each of these coordinates separately. The world can influence a work in many ways; it is the sociocultural, economic and political context within which a work is set and conditions its production. At the same time, the world can be reflected in the plot of the work as well. Reading beyond the work to consider these influences can enrich our understanding of the text.

The author, similarly, is integral to the creation of a work. A straightforward understanding of the author is that of the creator of the work. The work is the author's brainchild and a manifestation of his/her creativity. It is, however, also necessary to situate the author within an intellectual tradition. Consider Michel Foucault who says that the author is a discourse, a set of ideas to be deciphered through patterns in textual structures (Foucault, 1969). Foucault's approach suggests that it is not enough to look at the biographical details of when an author was born, when she/he died, where she/he lived, who she/he married, etc. It is equally important to understand the author as an intellectual and evolving being, with ideas and ideologies that can often be reflected in the (creative) texts she/he constructs through language. By this approach, tracing and establishing the writing tradition of authors is as important, perhaps even more important an act of contextualizing, than situating them chronologically in history. Looking for additional works by authors and exploring their writings, interviews, thoughts and opinions, as well as reading other works written by them will give us a holistic perspective and help us teach a work better.

The audience is, finally, of foremost significance, since it is the unique perspective of the reader that brings the text to life with each reading. At the same time, the act of interpretation stems from critical thinking and enables the readers to participate in meaning-making activities. If we take the purpose of critical literacy to be an enkindling of analytic thinking and active construction of meaning, this is one avenue for realizing Rosenblatt's transactional theory. At the same time, proof and validity of an interpretation must be drawn from the text as well as through extra information from the world and the author.

Interpreting "The Black Hen" Using Abrams' Rubrics: An Example of Critical Literacy Practice

Let's go back to the poem "The Black Hen", which is part of a poetry collection by Ramanujan, published posthumously in 1995. These poems were collated with three other (already published) volumes and brought out as The Collected Poems of A. K. Ramanujan (1995). Poetry collections work with an internal, structural logic. Contextualizing individual poems can therefore lead to a richer analysis. Truly engaging with the meaning of the poem would require the reader to place the work within a larger context, appreciate its craft and structure, and see how the uniqueness of the poet's craft expresses a theme that draws from a world outside the work.

The first level of interpretation of "The Black Hen" would suggest that it is about the process of writing poetry. Ramanujan uses the metaphor of embroidery to indicate that writing poetry is not a natural process, like leaves sprouting from a tree, but a careful, aesthetically constructed craft. The poem's reference to the black hen, however, still remains elusive. Drawing on Ramanujan's background as a translator, litterateur, philologist, folklorist and anthropologist at this point, can help us interpret the possible meanings embedded in the work.

K. Narayana Chandran's reference to a folktale in Britain, about a vicar who practiced sorcery, is useful for throwing light on the title. According to the tale, the vicar was delivering a sermon when a servant entered his house and opened his book of magic. As the servant started reading from the book, the weather became dark and stormy. A black hen and several chicks entered the house. They slowly started growing in size till they were as high as the ceiling. Midway through his sermon, the vicar noticed the change in weather and guessed what was happening. He rushed back home and saw the hen. He grabbed a bag of rice and threw it to the fowls. As the birds started eating the rice, the vicar quickly reversed the spell (Chandran, 2009).

When we read the poem within the context of this folktale, the text opens up a world of possibilities. Ramanujan's interest in folk traditions feeds into the incorporation of such stories in his work, lending depth and density to it. While the poem is about craft, it is also about the magical power of words. Though a majority of descriptions in literature on the magic of words remain positive and speak of transformation and empowerment (for example, Shakespearean sonnets, romantic poetry, etc.), Ramanujan's poem draws attention to its dark and threatening aspects. Poetry can empower, but in incompetent hands, it can also overpower. Every stitch can lead towards an intricate tapestry, but this can come undone as well. The symbolism of the black hen, with its dramatic use of colours such as black and red, add to the density of the work. There is also a hint of illegitimacy when we think of the vicar practicing black magic. It is the servant's act, however, that provokes the natural elements while the vicar sets right the wrong.

The title is dense with all these connotations that become evident when we read more about Ramanujan, and the context of his work in relation to the craft, which requires reading beyond the text. Further reading, as we can see, opens up the possibilities of interpretation and creates opportunities for a wide range of readers to comment on and analyse the work from their individual perspectives.

Also comment-worthy, at this point, is that what you have read so far is my interpretation of the poem, based on extra-textual references, as I used Abrams' rubric to construct a critical analysis of "The Black Hen". Any number of such interpretations are possible and valid as long as they draw on examples from the text to validate their stance. Several interpretations currently exist of the poem, and several more can be generated in the years to come. The interpretations by Narayana Chandran (2009) and Pallavi Srivastava (2015) listed in the references, for instance, are two of many critical readings of Ramanujan's works. Each of these interpretations is unique and valid as it focuses on select aspects of his poems and prose, and expresses the reader's opinion, drawing on examples from the work to substantiate its claim.

Some Concluding Reflections on the Methodology for Using Literature for Literacy

What is of critical import is that the deployment of Abrams' rubrics of the artist, the universe, the audience and the work for interpretation can lead to a dynamic classroom. As teachers, we can enable similar practices of critical literacy in our class, by providing additional resources to students to contextualize the text we teach. Other curated poems from Ramanujan's writing can broaden their imagination of the work as an artefact that is volatile and transforming. Students can now ground their interpretation using additional materials to validate their opinions. In the process, meaning-making becomes the focus of the language and literature classroom, leading to construction of knowledge through dialogues, which for Sperling et al., is a core function of literacy (Sperling et al., 2011). With this argumentative framework, we have already started moving towards an approach that privileges analytic thinking. A transactional approach in the language and literature classroom will enable the exploration, navigation and critique of the world, the text and the self, that remain the core concerns of critical literacy practice.

References

Abrams, M. H. (1953). Introduction: Orientation of critical theory. In *The Mirror and the lamp: Romantic theory and the critical tradition*. London: Oxford University Press.

Chandran, K. N. (2009). A source in sorcery: The Black Hen and the posthumous poet. *ARIEL: A Review of International English Literature*, 40(4).

Eco, Umberto (2002). *On literature* (Martin McLaughlin, Trans.) London: Vintage. (Original work published 1994)

Foucault, Michel. (1969). What is an author?. Retrieved from https://www.open .edu/openlearn/ocw/pluginfile.php/624849/mod_resource/content/1/a840_1_mich el_foucault.pdf

Freire, Paulo. (2005). *The pedagogy of the oppressed* (Myra Bergman Ramos, Trans). New York and London: Continuum. (Original work published 1970)

Ramanujan, A. K. (1995). Collected poems. New Delhi: Oxford University Press.

Richardson, Joan. (2014). Maryanne Wolf: Balance technology and deep reading to create biliterate children. *The Phi Delta Kappan*, 96(3), 14-19. Retrieved from http://www.jstor.org/stable/24375937

Rosenblatt, Louise. (1938). *Literature as exploration*. New York and London: Appleton-Century Company.

Sperling, Melanie, Appleman, Deborah, Gilyard, Keith, & Freedman, Sarah. (2011). Voice in the context of literacy studies. *Reading Research Quarterly*, 46(1), 70-84. Retrieved from http://www.jstor.org/stable/41038746

Srivastava, Pallavi. (2015). Syncraticity of cultures in A. K. Ramanujan's *The Black Hen. International Journal of Research and Humanities Studies*, 1, 110-118. Retrieved from https://www.academia.edu/19698306/Syncraticity_of_Cultures_in_A._K._Ramanujans_The_Black_Hen

Stephens, Kate. (2000). A critical discussion of the 'New Literacy Studies'. *British Journal of Educational Studies*, 48(1), 10-23. Retrieved from http://www.jstor.org /stable/1555844

Gender and Issues of Language in Science

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Key Words: Gender and science, Language and science, Feminist critiques of science, Feminism and science, Gender and language, Gender and education, Language and education

Abstract

It is difficult to intuitively grasp the language dependence between science and scientific knowledge at a first glance. Understanding how issues of gender permeate science by means of language is even trickier. In this paper, I will examine the ways in which language, science, and gender come together, and in the process impact and change each other, the effect of which are detrimental to both science and society. I have used the categories of science as culture, science as knowledge, and science as rhetoric in order to better understand the interdependence of these concepts. As actors in the field of education, an important first step is to become aware of these language mechanisms that go largely unnoticed. The different ways to utilise these perspectives can be explored collectively once we acknowledge the vicarious ways in which they impinge on our thinking and reasoning processes.

Language and Science

Though not apparent at first, language and science are intricately related to each other. The material world of which scientists ask questions and find answers to is first made available to them in their different languages. Examples of mathematical symbolism and visual representation such as diagrams and graphs may characterize scientific activity, but they have to be translated back to regular languages to be accepted as meaningful scientific knowledge. Moreover, the dominance of a language of scientific knowledge production and dissemination is governed by politics, wars and economics (Gordin, 2015).

In light of this background, I will examine the science-language dynamic through the lens of gender in this paper. My analysis rests on the notion of science as an expression of culture—a human enterprise for generating reliable knowledge about the world. Therefore, the role of language will be analysed against the social, political and cultural context of scientific activity by using the categories: science as culture, science as knowledge and science as rhetoric.

Science as Culture

Institutions of science have been frequently reported as being hostile towards women. They are described as possessing a "chilly climate", or being an exclusive "old boys club". From school classrooms to research organizations, learning and doing science have been considered difficult and inaccessible to girls and women. On the one hand, those who persist, particularly in the physical sciences, are humiliatingly labelled as "non-males"; on the other, a particular form of femininity, that of a "girly girl", is considered antithetical to science (Shah, 2012; Francis, Archer, Moote, de Witt & Yeomans, 2017).

Scientific language has been shown to have a grammatical preference for passive voice and abstract nouns derived from verbs instead of the verbs themselves, both of which tend to make actual people/actors/subjects disappear. For instance, the phrases "experiments were conducted", or "data are tabulated", are common phrases indicating that no one in particular conducted the experiment or tabulated the data, and whoever did so holds no significance. Another such example can be found in the phrase "representation of a 3D orbital" (absence of an active verb form) versus "how do we represent a 3D orbital" (presence of an active verb form) (Lemke, 1990).

This style of language creates a strong contrast between the language of human experience and the language of science. It projects science as a simple and absolute description of the world with no human imprint whatsoever. Such a confluence of messages has been shown to alienate girls who are understood to be more interested in human relations and endeavours that are more social and communitarian (Brotman and Moore, 2008; Lemke, 1990). Further, not only does it repel some students because of this image, but it also attracts the ones it does on a false promise of knowing the world completely, certainly and absolutely.

Carol Cohn discusses the ubiquitous, unabashed and unapologetic use of sexual imagery in the language of American defence intellectuals (Cohn, 1987). She adds, "penetration aids" are bombers or missiles that get past the enemy's defensive systems, "holes" for placing the newest phallus-shaped missiles have to be "nice" and not "crummy", and the styles of missile attacks are framed as "protracted versus spasm". She discusses that the euphemistic names of the atomic bombs dropped on Hiroshima and Nagasaki (Little Man and Fat Boy, respectively) were intentionally thought of as male progeny. Cohn asserts, "In early tests, before they were certain that the bombs would work, the scientists expressed their concern that they hoped the baby was a boy, not a girl.... That is, not a dud" (Cohn, 1987, p. 701). She concludes that this kind of male sexual imagery saturates the broader cultural context of the defense world and that the discourse of militarist science is laden with undertones of heterosexual domination and homoerotic excitement.

Science as Knowledge

Scientific knowledge is replete with models and metaphors that lends to the practice of theorising in science, despite a pervasive belief in the transparency and neutrality of scientific language. An analysis of two important scientific metaphors should alert us to the ways in which troublesome qualities of our culture, encoded in and carried by our language, become a part of scientific knowledge and the processes of scientific knowledge generation.

Emily Martin undertook a study of the scientific accounts of reproductive biology, and successfully demonstrated the centrality of cultural stereotypes of males and females in the biological thinking around the process of reproduction. She asserts, "it is remarkable how "femininely" the egg behaves and how "masculinely" the sperm" (Martin, 1990, p. 489). The egg is passive; it does not move on its own, but "is swept" or "transported". Sperms, in contrast, are active, move fast, and "activate the developmental program of the egg". Martin adds that processes in the female reproductive system are almost invariably cast in a negative light. Menstruation is the "debris" of the uterine lining, a failure, a lost opportunity; once-amonth production of an egg which escapes fertilization is utterly wasteful. The male reproductive processes are evaluated differently as the generation of millions of sperms daily is lauded, with no concerns of economy, and the mechanism of producing sperms is considered aweinspiring and wonderful. As a result, the message that gets conveyed is that not only are female bodily processes less worthy than male bodily processes, but by extension, women are less worthy than men (Martin, 1990).

Keller (1995) provides another example of a metaphor with gendered connotations that had a significant impact on the field of molecular biology. She reports that the metaphor of gene-organism or gene action was devised to capture the elusive concept of gene in the early 20th century-gene as both a physicist's atom and as an architect's plan. This linguistic move opened up a prolific research program, which not only worked without an actual and firm knowledge of its central concept, but it also determined which questions could be asked and thus what kind of explanations made sense. While studying the organisms, the male gamete (the sperm) was readily fashioned as "pure nucleus", while the female egg, because of its much bigger size, was considered as a combination of nucleus and cytoplasm. These apparently coherent cultural-conceptual linkages between nucleus, sperm, and male on the one hand, and between cytoplasm, egg and female on the other hand had the cumulative effect of channelling more scientific attention and resources to the study of "spermy" nucleus, and of suppressing the study of the rest of the cell or even rest of the organism.

Science as Rhetoric

Metaphors of gender politics have been consistently present in both informal and formal thinking of scientists since the emergence of modern science. In fact, the earliest formulations of modern philosophy of science were conceived and expressed by employing sexist language and metaphors:

For you have to but follow and as it were hound nature in her wanderings, and you will be able when you like to lead and drive her afterward to the same place again....

Neither ought a man to make scruple of entering and penetrating into those holes and corners when the inquisition of truth is his whole object. (Francis Bacon, as cited in Harding, 1986)

Metaphors in science are not discardable heuristic tools which lead to a more literal description and explanation of a phenomenon under investigation (Hesse, as cited in Harding, 1986). They link two systems which interact with each other in a way that "men are seen to be more like wolves after the wolf metaphor is used, and wolves seem to be more human" (as cited in Harding, 1986). Hence, the writings of Bacon and his successors helped equate woman and nature, implying that nature could be harangued like women, and exploitation and harassment of women was "natural".

Another manner in which scientific rhetoric incorporates gender ideologies is by maintaining and perpetuating the value of the meta category of "laws of nature" to codify observed regularities in the natural world. A presumed transparency and neutrality of scientific language renders "laws of nature" beyond the relativity of language and, in the same move, obscures the political and theological origins of the idea of the phrase. Like laws of state, they are historically imposed from above and obeyed from below.

Keller (1985) shows that this impulse to produce knowledge aimed at controlling and predicting nature by using the laws of nature, co-develops with aggression and autonomy in the male psyche in western familial structures. She argues that the traditional form of objectivity, as characterized by a separation between the knowing subject and the object to be known is a masculine phenomenon. Female psychological development does not proceed through a complete separation between the subject and the object, which Keller argues, provides us with a wider, non-hierarchical category of "order" to capture the regularities in nature.

An analysis of the metaphor of science as a "mirror of nature" also leads us to challenge the rhetoric of science as an objective, value-neutral body of knowledge. In this conception, knowledge generation is a function of "vision", of sighting a separate non-self, a trait associated with the infamous "male gaze" This sighting of a separate non-self is predicated upon the passivity of the object observed and the active observer, lending itself to be categorised as male gaze. As Keller and Grontkowski (1996) write, "[V]ision is that sense which places the world at greatest remove; it is also that sense which is capable of functioning outside of time ... it is the sense which most readily promotes the illusion of disengagement and objectification" (p. 191).

Conclusion

Feminists have successfully shown the presence of male bias in science. Contemporary feminist theories of science aim to rescue science from its misgivings about nature, knowledge, knower and method. Needless to say, such a framework and philosophy would have to be conceptualized using feminist metaphors. The aim of knowledge would therefore not be domination and mastery, but reciprocal understanding and appreciation of nature. Establishing mechanisms to check which values become a part of science would therefore be necessary. Objectivity would no longer be characterized in terms of distance, absolutism and disinterestedness, but in terms of close contact, responsibility and partiality, along with a heightened concern for those on the margins of science and society.

Though it may be difficult to imagine the exact form of "feminist" science right now, we need not wait for it to be historically realized to experience the force of these ideas. For us, as actors in the field of education, a reflection on these issues is warranted not just to examine our own knowledge and beliefs but also to acknowledge our collusion in maintaining and even strengthening status quo through our pedagogies. Such a reflection or "waking up", to use another metaphor, is both necessary and timely.

References

Brotman, J. S., & Moore, F. M. (2008). Girls and science: A review of four themes in the science education literature. *Journal of Research in Science Teaching: The Official Journal of the National Association for Research in Science Teaching*, 45(9), 971-1002.

Cohn, C. (1987). Sex and death in the rational world of defense intellectuals. Signs, 12(4), 687-718. Retrieved from http://www.jstor.org/stable/3174209

Francis, B., Archer, L., Moote, J., de Witt, J., & Yeomans, L. (2017). Femininity, science, and the denigration of the girly girl. *British Journal of Sociology of Education*, 38(8), 1097-1110.

Gordin, M. D. (2015). *Scientific Babel: How science was done before and after global English*. Chicago: University of Chicago Press.

Harding, S. G. (1986). *The science question in feminism*. Ithaca, NY: Cornell University Press.

Keller, E. F. (1985). *Reflections on gender and science*. New Haven, CT: Yale University Press.

Keller, E. F. (1995). *Refiguring life: Metaphors of twentieth-century biology*. New York: Columbia University Press.

Keller, E. F., & Grontkowski, C. R. (1983). The mind's eye. In *Discovering reality* (pp. 207-224). Springer, Dordrecht.

Lemke, J. L. (1990). *Talking science: Language, learning, and values*. Westport: Ablex Publishing Corporation.

Martin, E. (1990). The egg and the sperm: How science has constructed a romance based on stereotypical male-female roles. Signs, 16(3), 485-501. Retrieved from http://www.jstor.org/stable/3174586

Shah, C. (2012). From numbers to structures: Navigating the complex terrains of science, education and feminism. *Contemporary Education Dialogue*, 9(2), 145-171.

Teaching Writing: A Reflective Account

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Key Words: Dialogic pedagogy, Critical literacy, Reflective writing, Motivation

Abstract

This article is a reflective account of my pedagogical engagement with a student from a Hindi-medium school background in an MA course on critical and academic writing. Three approaches to encourage critical engagement with writing have been emphasized in this article: socio-cultural reflection on anxieties around writing; dialogic engagement with the student to discuss the logic behind sentences instead of mere explanation of grammatical conventions; and bolstering student motivation through self-evaluation exercises.

"Is English something one just has or is it something that can be earned?" I was teaching a course on critical writing in a Master's programme on liberal studies¹, that was designed to introduce students from various disciplinary backgrounds to critical argumentation. The student who asked me this question went on to tell me about her anxieties with articulation in English. She had studied in a Hindimedium school and had always struggled with coherent articulation in English; she relied on literal translation from Hindi. In a class filled with students mostly from elite English medium schools, here was a student asking me if it was possible to learn English through a formal course. Her question revealed a certain skepticism shared by many learners doing both professional as well as academic English courses, that such courses benefit the already privileged, not those with little to no cultural or linguistic exposure to English. In this essay, I will reflect on my experience of pedagogically engaging with this student (henceforth referred to as 'S') and the different approaches that I used over the course of ten months, to help facilitate her growth in writing. I will focus on three primary approaches: first, encouraging reflection on the sociocultural basis of her relationship with English; second, working on how sentences can best capture the logic of thought; and third, critically motivating her through the duration of the course. While this experience is rooted in a postgraduate program where students already had a minimal fluency of English (at least oral, if not written), I hope that some of the insights can be useful for language and writing teachers across educational contexts.

Socio-Cultural Reflection

Since the course thematically engaged with debates in education, I encouraged the students to reflect on how their relationship with literacy had been influenced by larger socio-cultural forces. We recognized the power relations between students based on their socioeconomic background, identity, access to resources, and standards imposed in academic institutions. This was to challenge the perception that difficulty with reading/writing was an individual problem, and instead emphasize that it was related with multiple social factors. One of the assignments to facilitate such a reflection was the literacy narrative: students were encouraged to write a short essay on a struggle they had experienced while learning in the program. The assignment had three steps: first, students were asked to write a short description on their emotional experience of the struggle; second, they were asked to read analytical essays on similar themes; and finally, they had to transition from the description to an evaluation of their struggle. S chose to write on her relationship with English, focusing on her anxieties around writing:

The equation between me and writing is complicated because I imagine writing as an act of empowerment but the current status of reality check [sic] says that it makes me feel vulnerable. The more I want to write, more I expose to the reality [sic], I am unable to write well (...) Inability to write well – what is cause [sic] of my inability. Is the problem is [sic] psychological, social or linguistic? Question ,Question, Question but no single answer to give [sic] ... (Literacy Narrative Assignment)²

While S's articulation was not entirely clear owing to imprecise vocabulary and

multiple grammatical inaccuracies, she was able to convey the paradox of her experience with English. The assignment probed her to think about the complexity of the problem—the fact that it could be based on multiple psychological, social, and linguistic factors. She went on to think of how the problem had emerged by recognizing how she was "taught grammar but not taught how grammar will be used in [sic] real life situation". She finally diagnosed the problem as being a function of the "product system [sic] of writing whose only focuses [sic] was getting grammar right ... and that expectation of accuracy and controlled rules of grammar has overpowered my daring [sic] of writing".

The assignment, by her own admission, helped her to develop a vocabulary to label and de-mystify the problem: that owing to the emphasis on writing as a product, she had been unable to develop a contextually meaningful relationship with linguistic expression in English. One phrase that caught my attention was "daring of writing". What she meant was that writing required an act of daring or courage to express oneself, to be able to creatively and morally express oneself. She also articulated the problem in terms of her bilingualism:

Still, grammar, article, comma, long list of punctuation marks [sic] overpowers my intensity [sic] to express. To rectify the situation - [sic] They told me, write small sentences, but [the] intensity of my emotions was unbearable for small sentences.... I always felt, my intensity of emotions get [sic] lost in [sic] process of translation from Hindi to English. (Literacy Narrative Assignment)

S's articulation of tenses and her conflicted relationship with the English language helped me fine-tune my approach. To begin with, I realized that merely pointing out the correct grammatical convention might not necessarily motivate her; instead, I began to focus on clarifying the logic behind her sentences. Second, I recognized that she had to rely less on direct translation, and engage more with the emotional idioms within the English language itself. I realized that it was important to motivate her and facilitate a self-evaluation practice, to overcome the feeling of being punitively judged by standards she did not entirely understand or agree with. As a critical counterpoint, I should note that the assignment in itself does not necessarily empower students to write better. However, as I have shown, it helps clarify how they experience a conflict in language acquisition and learning. This further helps the facilitator plan interventions specific to the student.

Focusing on the Logic behind the Sentences

In my initial feedback to S, I pointed out various grammatical errors, labelling them as problems of subject-verb agreement, tense, punctuation use, etc. Ironically, she told me that she had gone through many grammar books, but was still unable to rectify the problems with her writing. I therefore adopted a slightly different approach. While I continued to point out the convention to her, especially with regard to punctuation, I focused more on clarifying the logic behind the sentences³. For example, she had written the sentence: 'The more I want to write, more I expose to the reality. I am unable to write well'. Now while this sentence vaguely conveys the idea that her attempt to express is constrained by an awareness of either her own limitations or the conventions within which she has to write, the lack of explication of what "reality" means dilutes the clarity of the sentence. In our one-on-one conversation, I asked her what she meant by "reality". I

explained that while it may be selfevident to her, another person might not understand. Similarly, I asked her who or what she was exposing to reality ("I expose to" does not logically convey that she is exposing herself). I also asked her why she had used the word "expose", since she seemed to be referring to a sense of becoming aware and being constrained by a certain "reality". I then asked her if she was unable to write well because of what she was feeling, since there was no causal relationship established between the final phrase and the previous two phrases of the sentence. I found it difficult to demonstrate the use of "the" in the second phrase through a question, and so I explained it as a convention. During the conversation, we deliberated upon alternate phrasings. For example, one alternative could be "The more I write, the more I feel constrained by conventions of writing, and thus/so I am unable to write well". While S did not necessarily feel satisfied with the alternate sentences, it was an attempt to show her how the clarity of a sentence depends on both capturing the idea using the most relevant vocabulary as well as ensuring that there is a logical relationship between different parts of the sentence. To reinforce the logic of the sentence, I changed the basic structure of the sentence to "The more I ..., the more I ..., and so I ...". I wanted to demonstrate to S how the same logical structure could be used in multiple contexts.

However, such an exercise needs to be supplemented with a longer process of cultural immersion and negotiation to critically acquaint oneself with contextspecific usage. In her final paper on the importance of "passion" in teaching, S had to negotiate between her existing cultural idealization of the teacher as a "guru", worthy of reverence, and the academic study of the modern school teacher as a complex subject working within professional constraints. I thought it was essential to reflect on both through dialogue. We scheduled several conversations in which we went back and forth to flesh out the ideas, not prioritizing one cultural frame over another, but instead trying to develop a comparative understanding of the different frames through which the identity of the 'teacher' is studied.

Motivation

The importance of dialogue brings me to the final point—the role of motivation in facilitating writing. S, in my initial assessment, seemed to be a fairly motivated, disciplined, and enthusiastic student. She finished her class readings, paid attention in class, and even participated in classroom discussions. However, I realized that her motivation to improve her English language communication wavered occasionally, as she wondered whether her efforts were entirely futile. When I was giving her oral feedback on her literacy narrative, she broke down, and told me about her acute sense of failure in attempting to learn the language. She also told me that it was her father's dream she was trying to fulfill, since he had constantly pushed her to prioritize the learning of English, but now it had become both her dream and her burden. While it is important to reassure the student at such moments, it is equally important to demonstrate to him/her how they have improved over time. In class, I used questionnaires for the entire class, asking if the piece was coherently and lucidly written, to facilitate peer reviews. In one-on-one conversations, I asked S to compare her present writing with what she had written in the past and to observe the changes in her writing. Through the course, her ability to self-evaluate significantly improved.

S's motivation to fluently express herself in English was simultaneously linked to

her aspiration towards social and psychological empowerment, as well as her professional motivation to teach. Through the literacy narrative and the final paper, I encouraged her to choose topics where she could critically explore her social and professional motivations, to think harder about the specific role that English needed to play in her life. To conclude, the attempt to help her improve her fluency in argumentative writing in English gradually grew into a larger examination of the role English plays in our individual and social lives.

Notes

 This course runs at the Young India Fellowship, a postgraduate diploma program. I teach a course in the Critical Writing programme, titled "Education and Society", which runs for a duration of ten

References

months over two semesters. The course is thematically focused on debates on education in India, while simultaneously making students write and revise multiple drafts of assignments in genres such as summary, review, narrative essay and research paper, to develop academic and critical literacies. The experience recounted here is from 2017-2018.

- 2. I have quoted directly from her assignment, without edits. I feel it is important to recognize the idioms within which the student attempts to articulate, and not immediately denigrate it as incorrect.
- 3. For a detailed exposition of this approach, see Fish (2011), particularly chapters 1 and 3.
- 4. For a longer discussion on the role of motivation in facilitating writing, see Hidi and Boscole's (2011) edited corpus.

Fish, Stanley. (2011). *How to write a sentence: And how to read one*. New York, NY: HarperCollins.

Hidi, Suzanne, & Boscolo, Pietro. (Eds.). (2007). *Writing and motivation*. Amsterdam: Elsevier.

The World of Hindi Medium Students

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Key Words: Hindi medium students, Understanding, Expression, Sociolinguistics

Abstract

Language works as a medium to illuminate the world around us. It also acts as a medium for voicing our emotions and ideas. However sometimes, certain language contexts prevent us from expressing our thoughts. When and why does this occur? This is an experience-based paper that touches upon different aspects of language from a sociolinguistic perspective to understand the relationship between language and society. In this paper, I will examine how people use language differently in different social settings. The ideas that I have shared in this article are based on my experiences and memories from my school and college years. Some of the ideas are also based on my experiences as a research scholar while studying for a course paper in which the medium of instruction was English.

I have done my schooling as well as most of my higher education in Hindi¹. In school, most of the prescribed textbooks and other supplementary textbooks were in Hindi. That is why I had no experience of how difficult it can be to understand and explain any disjunction between language. comprehension and expression. When I took admission in the B.El.Ed. course². almost all the study material and books were in English³. Like me, my other classmates from educational institutions where Hindi was the primary medium of instruction (Hindi medium) were also distressed by the non-availability of study material in Hindi, especially in the early vears. After some time, we made peace with the fact that the study material was only in English and we would have to make do with it.

Still, the struggle to search for material in Hindi continued. We often tried to translate articles from English into Hindi. However, this effort to prepare notes by first translating could not be done systematically and in continuity due to lack of time and too much study material. At that time, I personally did not face many problems because the classroom environment was bilingual.

It is important to understand at this point, that there is no homogeneous category of Hindi medium students; rather, there are different kinds of Hindi medium students. For instance, many students can write and speak in Hindi, and participate in classroom discussions in Hindi, but they can understand lectures in English as well. Most of these students can read study materials in English without much difficulty and on the basis of that, they can write their tests, exams, etc., in Hindi (I was one such student).

There are some Hindi medium students who find it difficult to comprehend English. They are comfortable writing in Hindi and also participate in classroom discussions only in Hindi. Such students face major difficulties while reading English texts. Also, making sense of English lectures is more a struggle for such students than a process of understanding. In the B.El.Ed. classrooms, many of my classmates belonged to this category and hence faced such challenges.

There was yet another category of Hindi medium students. Although these students were more comfortable with writing and participating in classroom discussions in Hindi, they preferred to write in English. As the study materials and various resources were mostly available in English, they used them to prepare their content. They believed that by moving to English, they would do better in higher education. Such deliberate choices contribute towards maintaining the power of one language over another. They also help to understand how "education becomes an important avenue where various subtle processes help in strengthening the language hierarchy" (Saxena, 1997, p. 270).

I remember one of my classmates telling me that although she felt more comfortable expressing herself in Hindi, because of parental pressure, she started writing in English. This reflects how social factors affect language choice and usage. The students who fall in this category have specific problems, such as forgetting English words, phrases, etc., during examinations. Also, they are not comfortable attempting experiencebased or perspective-based questions in the examinations, because to attempt these, one has to rely more on one's thoughts and ideas and less on the theoretical content, which they memorize for the examination.

While doing sociolinguistic research on the attitude and perceptions of students in Indian universities towards English and their use of English, Aggarwal (1988) argued that English is a language of opportunity in India. In fact, 66 per cent of the respondents⁴ in his study believed that society assigned great value to English. Also, 72 per cent of the respondents were of the opinion that those who do not know English are at a disadvantage. This helps to understand how society in general and institutional structures in particular affect language and its use.

The issue related to understanding and expression becomes even more serious when students do not realize that they are not solely responsible for their lack of comprehension in classroom lectures or English content. Sometimes, language barriers and environment-related aspects also play a crucial part, due to which they are not able to develop their ideas and form a better understanding of the subject. Kumar (2001) argues that the process of understanding and expression gives rise to linguistic duality⁵ and a behaviour that shows a lack of selfconfidence among Hindi medium students.

This issue is as serious for teachers as it is for students. Often, teachers also struggle in this complex context of Hindi and English medium students. Students have to however be given the reassurance that they can express their thoughts in any medium they are comfortable in. This can be very challenging for a teacher, who has to be sensitive enough to gain the confidence of the learners, so that they can express themselves without hesitation, regardless of their language background. Due to time constraints and sometimes also due to the flow of ideas, a teacher may forget that she had to speak in both the languages.

I felt these complexities of language, understanding and expression as a student more deeply, when during Ph.D. I took a course paper⁶ that was in English (i.e. reading, writing, presenting, etc., everything in English). This was the first time that I had taken a paper completely in English as the department in which I had enrolled for the course taught only in English. Hence, I could not even ask whether I could use Hindi in class discussions and assignments. I was able to use English for communication and writing purposes, and therefore thought that I would be able to handle one course paper in English. My assumption was that since I was keen on learning, language would not be such a big an obstacle. Moreover, I had already experienced the hegemony of English language in higher education. Therefore, I thought that I would expand my language horizon, and decided to face up to my fear of expressing in English.

As part of the course paper, we were given a weekly task of reviewing five research papers published in reputed journals that were related to the chosen theme for the term paper, and mail them to the teacher. I searched for the articles and read them one by one. Before typing the final review draft, I prepared multiple drafts for each article. If I had any questions, queries or any ideas I wished to include in my review, I had to write them down in Hindi first. These were then translated into English, with the help of an Online Hindi to English Dictionary Translator, wherever required.

In the upcoming classes (which were of two hours each), the first hour was kept for presentations, in which every student was given 15-20 minutes to present their review. On the day of my presentation, out of a total of five students, four were from the same department. I put my review in front of me, and after covering the title, the content, the name of the journal, date, etc., I started presenting my review in English. I wanted to explain the paper in my own words since I had understood it well. However, due to the constraint of presenting in English, I had to keep referring to the text in front of me and reading from it.

During the whole presentation, as my focus was constantly on reading, I felt I was just reading an essay instead of presenting and discussing a review. Whenever I tried to explain something to the class, I had to first recall the words and sentences in Hindi, then translate them into English in my head, and then speak out aloud in front of the class. In this process of thinking, translating and then speaking, I was not able to build a connection between the listeners and myself. In that presentation, I was constantly struggling with mental translation.

I had similar experiences during other presentations as well⁷. Whenever I had to ask or comment on something in the class, I had to first plan it in my mind. I had to write the sentences and questions in English on the corners of the pages or at the back of a notebook, then read them in my head to check if the sentence structure, words, etc., were correct, and then finally, read the sentences as comments or questions in class. This whole pre-planning process resulted in my input and questions being restricted as a result of my limited vocabulary. My classmates on the other hand spoke English with an ease and fluency. It seemed to me as if the mental processing required to speak in English was so internalized in their mind, that they did not have to stop and think about each and every sentence, before voicing their thoughts.

The difference between my situation and that of my classmates can be explained metaphorically using the example of driving a car. When a skilled driver drives a car, she/he does not need to remember to increase or decrease the speed of the car, change gears, and so on. All these processes become automatic for the driver. My classmates were like such expert drivers. On the other hand, my condition was like a driver who was learning to drive. Such a driver has to take care of several aspects simultaneously. She/he has to balance out several things and in that struggle, some aspects get neglected. Sometimes the driver forgets to shift gears, and at other times to increase the speed. That is how I felt during those classes, that in spite of trying very hard, I was not able to express myself in the manner that I wanted to. My ideas came through only occasionally in my oral expression. This inability in expressing my thoughts made me feel as if I had transparent walls around me. which separated me from the discourse and discussions of the outside world and limited me to the struggle inside my mind.

Language works as a medium to illuminate the world around us. It also acts as a medium for voicing our emotions and ideas.

Understanding and language have a relation like the air and wind. Humans grow their understanding and develop their web of concepts, relationships through language only. That is why in the process of formation of an individual, language works as a medium (NCERT, 2014, p. 10).

The experiences shared in this paper indicate the relevance of the close association between language, understanding and expression. In the absence of this three-way association, not only does voicing one's thoughts and experiences become difficult, but the whole process of comprehension and explanation, which is so crucial to a classroom, also becomes more complex and challenging.

Endnotes

¹ I have a Bachelor's degree in Elementary Education, and an M.Ed. and M.A. in Political Science from the University of Delhi.

² B. El. Ed. (Bachelor of Elementary Education) is a four-year integrated teacher training program.

³ Some of the essential readings that were not available in Hindi are:

- Berk, Laura E. (1996). Child development. New Delhi: Prentice Hall of India.
- Yule, G. (1996). The study of language. Cambridge: Cambridge University Press.
- Kakkar, S. (1980). The inner world. New Delhi: Oxford University Press.

⁴ For the purposes of this study, fifty-two students were randomly selected as respondents.

⁵ Kumar has explained this duality in terms of the language divide between the students of Hindi medium and English medium schools.

- ⁶ The paper was titled "Sociology of Schooling: Perspectives and Practice".
- ⁷ Some of the works used to present in the class were:
 - Vasavi, A. R. (2015). Culture and life in Government elementary schools. Economic and Political Weekly,50 (33), 36-48.
 - Erickson, F. (1987). Conceptions of school culture: An overview. Educational Administration Quarterly, 23(4), 11-24.
 - Nambissan, G. (2012). Private schools for the poor: Business as usual. Economic and Political Weekly, 47 (41), 51-58.

References

Aggarwal, K. (1988). English and India's three language formula: An empirical perspective. *Englishes*, 7(3), 289-298. Retrieved from https://onlinelibrary.wiley. com/doi/epdf/10.1111/j.1467-971X.1988.tb00238.x

Kumar, K. (2001). Bhashaaur samajik vibhajan. In R. Agnihotri & S. Kumar (Eds.), *Bhasha, boli aur samaj: Ek antah samwad* (pp. 1-7). New Delhi: Deshkaal Prakashan.

National Council of Educational Research and Training (2014). *Samajh ka madhyam*. New Delhi: NCERT.

Saxena, S. (1997). Language and the nationality question. *Economic and Political Weekly*, *32*(6), 268-272. Retrieved from https://www.epw.in/system/files/pdf/ 199732/6/perspectives_language_and_the_nationality_question.pdf

The Language Experience Approach: An Invitation to Talk, Read and Write

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Key Words: Oral language, Written language, Literacy, Experiences, Home language, Transition

Abstract

In this paper, I will focus on the significance of Language Experience Approach in the early learning years. I will discuss the different features of this approach, which contribute towards making it an effective and meaningful approach for language learning and literacy. In particular, I will highlight the relevance of using children's experiences for making a transition from home language to school language, and from oral language to written language. In the multilingual context of India, this approach welcomes the use of different languages, not just for the purposes of speaking but also for reading and writing. It is the beginning of the school day. The few children of Grade I who have reached school are huddled together in a corner of their classroom and are engaged in a spirited talk. As other children trickle in, the whole class is abuzz with a certain news. Soon the teacher of that grade enters the classroom and notices that the class is charged with excitement. As children become aware of her presence in the classroom, they rush to spill the news to her.

A goat has given birth to a kid—a baby goat—in Dinesh's household, a five-year old boy in the class. With some directions from the teacher, the children settle into their places on the taatpattis, readying themselves for the morning message. The whole class is drawn into an animated discussion about the birth of the baby goat. What does the kid look like? Did someone see the birthing? What name will it be given? Is it a boy or a girl? How small is it? Who else has kids and calves? Following the daily routine, the teacher offers to write the morning message that the children would like to have her write on the board. After a few attempts and suggestions at phrasing a message by the children, finally, she writes the following sentence:

"वा की बकरी ने बच्चो दीया " (His goat has given birth to a kid.)

The teacher asks tentatively if they would like to add whose goat it is, clearly indicating that it is the children's decision to make any change to the sentence phrased by them. The children find the suggestion suitable and the sentence is rephrased as:

"दिनेष की बकरी ने बच्चो दीयों" (Dinesh's goat has given birth to a kid.)

The teacher asks the children to help her write their message. As she holds the chalk to the board, she waits for the children to dictate the message. She mouths the words as she slowly writes each letter of the word in the message on the board. The children adjust their pace of dictation to the teacher's pace of writing. As she finishes writing each word, she tracks it with her finger from left to right and reads it aloud. She invites the children to read the message with her. Once again, she points to each word as the children read the message.

When starting school or pre-school, most children are at the point of making transitions of several kinds. Firstly, the transition from the familiar environs of their homes to the relatively unfamiliar school setting. Secondly, the transition from the language of their home to the language of the school. Thirdly, the transition from oral language to written language. However, these transitions are not absolute; they are diverse in nature. These transitions happen in classroom contexts which are fairly complex because of the linguistic diversity of the classroom. There are some children who come from a linguistic background that is similar to the one in school, while others find themselves in a school environment in which teachers speak a language that is alien to them. In addition, classroom contexts wherein the teacher and children do not have a "common" language for communication are not rare. Similarly, the nature and kind of exposure children have to the written language or print before entering school is fairly diverse. The transition for a child who has had access to print and opportunities to engage with it will vary from that of a child who has had little or no such access or opportunities. Whatever be the case, these transitions are not easy for most children. Our concerns around poor reading and writing achievement, and getting children to learn the language of the curriculum or school is evidence of the fact that these transitions are not smooth for children entering the early grades in school.

However, teaching children how to read and write in the language of the

curriculum or the language of the school is a challenging task in a multi-lingual country such as India. The children belong to diverse language backgrounds, and for many of them the language of the school or the curriculum is not the language they have grown up listening to or speaking or witnessing the significant others around them at home read and write.

In this paper, I will examine how Language Experience Approach draws upon children's experiences and invites young developing readers and writers to engage with reading and writing. The relevance of the Language Experience Approach in supporting young children's transition from oral language to written language in the early years is well-known (Dorr, 2006). In the following section, I will briefly discuss Language Experience Approach, often referred to as LEA.

The Language Experience Approach (LEA)

The vignette described at the beginning of the paper gives us a glimpse into what the Language Experience Approach is all about. In the vignette, the teacher and children are collectively engaged in talking, writing and reading, at the centre of which is an experience shared by a child. The "ownership" of the experience by the child or children, and for it to become the "purpose" or reason for discussion, reading and writing are aspects that are vital to this approach.

In this approach, children are invited to share their experiences—collective or individual, thoughts or feelings—on something of personal value and meaning to them. The experiences can be as varied as the children's personal lives, the different classroom situations and settings in different places. They could range from doing things together in the classroom such as rearranging the books in the reading corner; dusting the taatpattis each morning; watching a cricket match or a movie; spotting a spider or a lizard on the classroom wall; visiting the local haat with their family; watching the din and pandemonium of an election campaign; talking about the entry of a new child in the classroom; or responding to a book read by the teacher. Alternatively, but, perhaps less often, are instances where the teacher "suggests" an idea. For example, a class of kindergartners was asked if they would like to collectively draft a letter to the author of a storybook they had enjoyed listening to and reading. Ordinarily, this is something which will perhaps not occur to four-year olds. The teacher showed them a possibility of meaningful and purposeful reading and writing. The text emerging from each interaction acquires a shape and format congruent with the purpose of writing. In the vignette shared earlier, the class was composing a morning message. It was a message that will stay on the board for the entire school day. Children will have the opportunity to read it as often as they would like.

This is an approach which essentially looks at children's experiences and personal worlds as significant contexts, which lend organically to the development of reading and writing in young children. Put simply, the teacher writes what the children dictate. However, the process unfolding during this interaction is a powerful one. The teacher scaffolds (Mason & Sinha, 1993) the children's writing and reading with the required support as children lead the process.

In the following section, I will further elaborate on a few significant aspects of LEA.

Valuing Children's Experiences

Children's experiences make for a very familiar and comfortable context for learning and is therefore a powerful resource. By using their own experiences, children bring or create their own meaning because they "own" the experiences by virtue of having lived them. These experiences provide the content and context of reading and writing in the practice of LEA. Further, LEA invites children to talk about and share their experiences. This breaks the boundaries between the in-school and the out-ofschool worlds. LEA also demolishes another barrier-the barrier between the home and school languages of the children. This has been discussed in the next section.

Legitimizing the Use of Home Language in School

The language children are born into is the language in which they experience the world. The child's home or first language is the language in which some of the earliest concepts and ideas about the world are formed in the child's mind. The child's oral language is one of the most powerful knowledge resources that the child brings to school. However, quite often, the language a child brings from home and the language of the school and curriculum are not the same. This is hardly surprising in our multi-lingual country. LEA recognizes the significance of the child's oral language in the early years. It does not interfere with the children's language and values, or with

their oral expression in their home language. This sends a vital message to the children—that their home language is welcome in school. Then LEA goes a step further and represents the oral language of the children in reading and writing as well. LEA makes it possible for the children to use their home language for reading and writing in school. The metaphor of "bridging" is often used to explain the connection that LEA creates between the children's oral and written language. As the children dictate the message, the teacher writes it in clear and legible handwriting on the board. The children witness their words taking form on the board or on paper. This experience of watching their words and experiences transforming into print conveys to them several significant concepts about the written language.

Space for Multilinguality

The vignette described at the beginning of the paper is from a classroom in a village school in Mathura. The school prescribes textbooks in Hindi, which is also the medium of instruction. However, the children are more comfortable dictating the message in Brij, the language spoken in the region of western Uttar Pradesh. The teacher writes simultaneously, as the message is dictated by the children. The teacher does not suggest any change in the words or syntax to align the language of the sentence with the school language. Multilinguality is not merely about providing labels to things in different languages. LEA embraces the use of nonschool languages not just in their oral forms but also in reading and writing.

Experiencing Reading and Writing as Meaningful Processes

In the process of watching the teacher write the dictated message or word, the children experience writing and reading as processes which can document and represent their thoughts, experiences and words. The dictated message or word is not based on any teachable aspect of language and literacy, but emerges out of the organic nature of the shared experience or thought. However, the possibilities it offers to develop concepts related to print are multiple and diverse. The processes of reading and writing are not fragmented or sequenced to "teach" any particular word, letter or sound. Children witness and engage with them in their wholeness. In other words, they are engaging with real or authentic reading and writing, which is an end in itself. The reading and writing taking place in the context of the LEA is led by the child or children. Consequently, the experience of being a reader and writer is immediate for the child.

Holding the Reins of the Writing Process

Right from the idea to be written, to the choice of words and phrases used, to the length of sentences and the text, everything is decided by the child. The child is the decision maker. The child holds the reins of the most important aspect of writing—the process of composing. As the child dictates, the teacher supports the developmental aspects of writing, for example, the formation of the letters, the letter-sound association, the spellings of words and other such mechanical aspects of writing. LEA gives children an opportunity to observe writing in the context of purposeful and authentic writing and not as a drill exercise to learn the letter shapes and sounds. Of course, children need several opportunities during the school day to observe others read and write and be a part of the process. In a nutshell, the teacher "demonstrates" (Cambourne, 2002) to the child how to "handwrite", while the child shoulders the "responsibility" (Cambourne, 2002) of composing.

Creating Texts

The practice of LEA leads to the creation of texts which are not only written in children's language, but are also rooted in their personal contexts. This is an empowering experience for children. The texts represent the child's world view and the larger socio-cultural context of the child. Once written, depending on the theme and nature of the texts, besides being displayed in the classroom for reading, they can also be put together as reading material in the classroom libraries or reading corners. In addition to a variety of books, children's writing and dictated stories make excellent resources for nurturing reading and writing in the early years.

Conclusion

Children need several and diverse opportunities to read and write in order to learn how to read and write. Opportunities to read, write and talk provide the young developing readers and writers with possibilities to create formulations about written and spoken language and discard them, if needed. LEA is a way of looking at these reading and writing opportunities, wherein the focus is on the children's experiences. The acknowledgment of children's lives and experiences in their language makes the school classroom a friendlier place for them and eases their various transitions. However, in our country, the value of this approach remains mostly undermined, even in circles where it is known. The primary efforts to teach reading and writing are geared towards the sequential teaching of fragmented bits of language and LEA remains a "frill" exercise. However, the possibilities this approach offers to children in terms of dealing with various aspects of reading and writing simultaneously are immense. Perhaps, a reconsideration of what the processes of reading and writing encompass, especially for a young learner, will allow a better appreciation of the Language Experience Approach.

References

Cambourne, B. (2002). Conditions for literacy learning: From conditions of learning to conditions of teaching. *The Reading Teacher*, 55(4), 358-360.

Dorr, R. E. (2006). Something old is new again: Revisiting language experience. *The Reading Teacher*, 60(2), 138-146.

Mason, J. M., & Sinha, S. (1992). Emerging literacy in the early childhood years: Applying a Vygotskian model of learning and development. *Center for the Study of Reading Technical Report; no. 561.*

Social Science and Language in Schools: Some Preliminary Notes

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Key Words: Social Science, Language, Power, History, Context, Voice

Abstract

In this paper, I will try to understand the relationship between Social Science and language by examining different perspectives of their meaning and nature. It foregrounds questions of history, context and contestations around power to situate the role of language in making sense of or masking the "social" in a Social Science classroom or text.

Introduction

In a discussion, it is often assumed that the meaning of the terms we use is clear to everyone. How misplaced this assumption is, can be understood when we engage with the discourses in different disciplines, especially Social Sciences. In this context, in the first section of this essay, I will discuss what is meant by Social Science and the role of language in it at the middle and secondary levels in schools. In the second section of this essay, I will draw attention to the purpose(s) of teaching Social Science in schools, and the possible demands these distinct purposes may make with regard to language in the discipline of Social Science. In the third section, I will describe the changes incorporated in Social Science textbooks and classrooms and the possibilities and challenges with regard to how language is used in the teaching of Social Science.

What is Social Science, What is Language

If we contrast the term "Social Sciences" with Natural Sciences, the object of the query comes out pretty clearly. Social Sciences focus on the social life of humans. This is in contrast with natural sciences, in which the "natural", the physical and the biological form the realm of knowledge creation. The Social Sciences are supposed to teach about society with reference to time (History), space (Geography), power and authority (Political Science), society and economy (Sociology and Economics). If this is what Social Science is about, then shouldn't the lenses of history, power, space and every day, guide us on how we think about language?

Given the colonial past of India, the question of language assumes a distinct dimension. In this context, English is not just a language, but it also represents a worldview, and denotes power. Access to, knowledge of and command over English in the past and contemporary times were/are mediated through a web of social locations and relations, institutions and aspirations shaped by political economy. Colonial experience and the colonial education system participated in the standardization of regional languages and the development of cultural identities associated with these languages. While earlier, the dominant groups in a region used the process of standardization to sanitize and purify a language, and thereby claim to participate in educating and reforming the unreformed masses, the emergence of counter public spheres guestioned this language (Sevlam & Geetha, 2009). Pandian cites the examples of two Tamil autobiographies Karukku and Vadu by Dalit writers Bama and Gunasekharan respectively, which "use colloquial Tamil with its regional and caste inflections", and "establish the ordinary as their chosen domain" (Pandian, 2008, p. 35).

In this context, the use of formal and grammatically correct language to explain Social Science is no longer just a question meant to elucidate ideas and concepts, but it makes demands on the students to read, write and speak in a certain language that is considered as desirable, ideal and standard. This demand, in the process, marginalizes other uses and forms of language. Thus, thinking about the use of language in the Social Science, one cannot evade the questions of power, resistance, culture and identities. These questions are not just themes in the domain of the Social Sciences, but become a lived reality in the very process of transaction of Social Science in a classroom.

This takes us to a different set of questions about language. In the universal humanist tradition, language simply mirrors social reality and is objective. However, poststructural theories of language have questioned this premise as well as the unmarked rational speaking self-located outside history and context, to claim objectivity and universal rationality. These theories argue that there is no fixed meaning of language, and it can be disputed based on the context. They have further pointed out how, the word constructs the world and knowledge is deeply conjoined with power.

Such questions about language pose a series of questions about language and Social Science. To encourage an understanding of social phenomenon, institutions and processes in concrete contexts, the Social Science textbooks need to use narratives, auto/biographies and literature as well. Students need to read and make sense of the narratives to paraphrase the argument, evidence or example in their own language, and to draw a comparison between various situations or vis-a-vis the experience and ideas of themselves or their classmates. Such a conversation demands and encourages greater mastery over language to articulate one's understanding and ideas.

Therefore, the language of Social Science cannot be a language of finality, but has to invite the students to bring their own knowledge, understanding and experiences to think about the concepts, theories and phenomenon discussed in the class. The use of language of affect, which gives space to disgust, pain, anger and degradation experienced through the everyday violence of caste and other structures of inequality and dominance, gives experiences their meaning and asks its readers to make a moral and political choice (Pandian, 2008). Historical awareness of the process of language formation and ongoing transformations

and contestations around it ask us to not label a child's home language as a "lack" or a "deficit". The language of the Social Science class and textbooks has to be comprehensible, "gender-sensitive, and critical of social hierarchies and inequalities of all kinds" (NCERT, 2006, p. 5).

Contesting Aims of Teaching Social Science in Schools

We can classify the purpose and justification of teaching Social Science in schools in two distinct categories as follows:

- a) Teaching Social Science to transmit facts and values to make better citizens who are aware of their rights and duties, participate in society, improve social and national efficiency and cohesiveness by developing certain common predispositions, attitudes, values, work ethics, etc.
- b) Teaching Social Science as part of liberal education to develop a reflective thinking and democratic citizenship, and to make students aware of the structural inequities and injustice in society so that they can critique and change it.

In a democratic society, education is expected to develop individual and collective capacities to promote reflection on the past and the present. This reflexivity, as a key cultural dimension of modernity is closely tied with the emphasis on rationality to examine existing social institutions, practices and values, and reorder them. For such reflexivity, developing the ability to examine evidence and deliberate on the basis of social practices, beliefs and decisions is essential. Social Science as a school subject, in its engagement with the "social", assumes a key responsibility in this process.

The role of language in Social Science is determined by the perspective guiding our aims of teaching Social Science in schools. The language of Social Science can be used to mask the inequalities, injustice and oppression in the society, or to draw attention to the social structures, constitution and operation of power in society and question it. Both Social Science and its language can either develop a sense of helplessness and acceptance of the unjust social order as being natural, normal and divinely ordained, or can promote a sense of agency among individual and collectivities to refashion social relations and structures. To make sense of the world in which they exist, students need to engage in a collective dialogue with each other. The new NCERT history textbooks, guided by the National Curriculum Framework (NCF) 2005, introduced students to how evidence is collected and examined, and how different evidence is compared when they seem to be contradictory (George & Madan, 2009, p. 33).

Historically, Social Science textbooks in general and Civics textbooks in particular have used very formal and legalistic language in their discussions on the institutions of the State. Such a language carries an authority of distance and has no space for children to discuss their experiences, or question "official knowledge". As a result, students develop an abstract image of society. Further, neither does such a legalistic, formal and abstract language develop an understanding of the conceptual and normative basis of the institutions. nor does it help to comprehend them in the context of their concrete functioning in everyday life. With such language, students are not able to make sense of social processes and structures. They "receive and internalize misrepresentations of marginalised and oppressed groups and visualise society in the image of its dominant groups" (Jain,

2004, p. 189). Such an internalization also helps to establish the hegemony of the State and dominant groups.

At this moment, a warning may not be out of place. It is possible that a Social Science textbook or a teaching-learning material or the language of a teacher may be quite ordinary and thus may seem accessible. It is also possible that the textbook may have several exercises and activities for students. But such a simple language may still present a statist perspective, may not question the social order or may present a narrative from the perspective of the dominant groups. Pragati, a series of contextualized support material, meant to be used as workbooks for practice in the Directorate of Education schools in Delhi, is a case in point. In Pragati 4, the chapter "Public Facilities" tries to identify "the role of government in providing essential public facilities", but makes no reference to why these facilities are unequally distributed across the city. Carved in the statist frame of old civics, it does not provide any critique of the state or social relations (Delhi Textbook Bureau, 2017, p. 35-48). The statist perspective in Pragati 4 is also evident in the chapters on marginalization, where there is greater focus on the recall of state provisions.

In the next section of this paper, I will discuss how an alternative use of language can question the hegemonic representation and present the possibility of a counter-narrative.

Alternative Uses of Language: Effort and Reception

In 2003, we were part of a group that was developing new Civics textbooks for Classes 6-8 for SCERT Delhi. Inspired by the Social Science textbooks developed by Eklavya, we used narratives, storyboards, photographs, comparisons, in-text questions, while simultaneously building on what the children already knew (Batra, 2009). In the Class 7 civics textbook, we introduced the chapter on citizenship with the following sentence, "Main Bharat kee nagrik hoon" (I am a citizen of India). Here, the speaker was a young girl who identified herself as a citizen of India. Many members of the textbook team, while reviewing the draft of the chapter, objected that the other members who had drafted this chapter were distorting the language. In their minds, the correct language should have been. "Main Bharat ka nagrik hoon". In this proposed version, the speaking subject was a male and this was presented as natural, normal and right. It reiterated and reinforced the invisibilization of the girl students as the speaking subjects, kept them voiceless, imagined only males as citizens, subsumed girls in the masculine narrative and treated it as natural. By changing "ka" to "kee", we had not only changed the language, we had also inserted a new voice. This new voice was the voice of a girl student who was no longer just a recipient of the textbook knowledge, but was now herself the

speaker of the text and could identify with that speaker.

Concluding Remarks

Quite clearly, the question of language in social science is about the very themes with which Social Science engages. While discussing the appropriateness of the language, we need to make note of the cognitive dimensions of language development with regard to the ages of the students concerned; we also need to recognize that languages have histories and operate in social contexts. If every discussion about knowledge and education must answer the question of purpose, then deliberations around Social Science, language and their interrelations too must be addressed. As we adults engage with these questions, we should not forget that children have their own agency, which should find expression in their Social Science classes and language use. But children also live, act, appropriate and reproduce hierarchies of power through language, and a Social Science class has to engage with that as well.

References

Batra, Poonam. (Ed.) (2009). *Social Science learning in schools: Perspective and challenges*. New Delhi: Sage Publications India Pvt Ltd.

Delhi Textbook Bureau. (2017): *Pragati - 4, 2017-18, Social Science Class VIII*. Delhi: Delhi Textbook Bureau.

George, Alex M. & Madan, Amman. (2009). *Teaching Social Science in schools: NCERT's new textbook initiative*. New Delhi: Sage Publications India Pvt Ltd.

Jain, Manish (2004). Civics, citizens and human rights: Civics discourse in India. *Contemporary Education Dialogue*, *1* (2), 165-198.

National Council of Educational Research and Training. (2006). Position paper *National Focus Group on teaching of Social Sciences*. New Delhi: National Council of Educational Research and Training.

Pandian M. S. S. (2008). Writing ordinary lives. *Economic and Political Weekly*, 43(38), 34-40.

Sevlam, Salai & Geetha V. (2009). *Textbook regimes: A feminist critique of nation and identity, Tamil Nadu*. New Delhi: Nirantar.

Call for Papers for LLT 17 (January 2020)

A Special Issue on Language Acquisition in Non-Tutored Settings

Guest Editor: Prof R Amritavalli

Languages are learnt not only in a language class (formally), but outside it (informally) also. In India, a great deal of informal language learning happens due to migration within the country: for a job, for education, or due to marriage (many brides marry into a spousal home whose languages are different from that of their own home). We wish to document personal experience stories of such informal language learning in teenagers and adults in this country. The contributions should not exceed the word limit of 2200 words; it is only in rare cases of theoretical interest that we accept papers that are 3000 words long.

Please tell us: What languages you learnt informally as a teenager or adult? Why you did so? (Did you have to do so, did you want to do so?) How you learnt them (Who did you speak to? Who spoke to you? In what contexts? Or did you start by reading?) and how long you took to do so? Do you only speak, or also read, and perhaps write, in these languages? How good are you in these languages, by your own estimate, and that of others? Please send us your papers as a word document in MS Office 7. For images, send us jpeg files

of high resolution.

Send your contributions to: jourllt@gmail.com

Interview

Sadhna Saxena (SS) and Neema Chaurasia (NC) talk to Shobha Sinha (SHS)

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Dr. Sadhna Saxena is a Professor, Department of Education, University of Delhi. She teaches courses on contemporary education, gender and education and science and society. Her research interests include gender and science, method of science, conflict and education and issues of equality and education. She is guest editing this issue.

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Ms. Neema Chaurasiya holds a Master's degree in Education and English Literature from the University of Delhi, India. At present, she is pursuing research in the area of language and education as a Ph.D. Scholar at the Department of Education, University of Delhi.

Dr. Shobha Sinha is well known in the field of language and literacy. She is a Professor in the department of education, University of Delhi. She teaches courses in language, and reading and writing. Her research interests include early literacy, literacy in the classroom context, and literacy development of children from marginalized backgrounds and low literacy homes.

NC: Dr. Sinha, you have had a long experience of working in the field of emergent literacy. What drew you to this field, initially?

SHS: No, actually initially, I was not drawn to this field. While doing my B.Ed. from CIE, I taught English in the high school for my practice teaching. After that I taught in a school in different grades including fourth and fifth. In that school, they gave primary grades to less experienced teachers! Soon, I proceeded to do my Masters in Education from America where I found out that most interesting things were happening in elementary education. So, I ended up in the department of elementary education in the University of Illinois for my Ph.D., because most of the interesting reading courses were offered there. While teaching in a school in India, I had developed an interest in children who came from low socio-economic and lowliteracy homes. So later, when I was looking for research assistantship in the Center of Study of Reading in the University of Illinois, I became interested in a research study which was dealing with what at that time they called "at-risk of failure" pre-school children from low socio-economic homes. I got my assistantship in that project, but I didn't realise how much one needed to understand about early literacy till I was asked to go and observe children when they engaged with literacy. That was the point when I became interested in emergent literacy and worked in the area.

NC: Could you please tell us what is meant by emergent literacy and about its roots in psychology and other disciplines?

SHS: See, generally research in literacy is multidisciplinary. Its roots are in cognitive psychology, psycholinguistics, literacy theory and developmental psychology. Initially a lot of work using developmental approach was in cognitive development and oral language, and then it came to literacy. In the 1980s, work from anthropological perspective and other perspectives started looking at social and cultural aspects of literacy. Because, after all, every child does not have identical experiences with literacy and language at home. For example, Shirley Brice Heath's work was very influential.

SS: Could you please elaborate on the relationship between developmental psychology and literacy?

SHS: Piaget's work in developmental psychology had been there for a long time, but people didn't connect it with literacy. Literacy was following its own track at that time and was influenced by behaviourism. See one approach in literacy which existed earlier was that you teach something step by step, and they learn mostly about phonics because the early definition of reading was that reading is decoding. So the job is simple, you teach them decoding they'll know how to read. So you did a lot of stuff with phonics and sub-skills, you know, you drill them.

The contribution of developmental psychology was that it drew attention to many things which you don't overtly teach children. First of all, it considered the age from birth to six years very important; that was Bruner's contribution; years which were neglected in reading. What happens during those years? Let me explain development by an illustration. For example, this whole concept of "approximation", which you accept in oral language. When a very small child doesn't speak the word exactly as adult say it, you don't panic. You don't start correcting/rejecting him. But in literacy, you will see that even very knowledgeable people start panicking when the spelling is wrong, even in Grade 1, or when a child can't read the word exactly. There were interesting studies and one researcher had noticed that in a literate society, many children who were not taught overtly, could read. So what was happening with these children? How

exactly did they learn to read? If a child is surrounded by print, it's safe to assume that the child would think something about it. In developmental perspective, first of all you look at reading from a child's point of view/perspective and secondly you don't see approximation as errors, you appreciate that they have reached there. You are willing to accept the fact that the children will take note of their environment whether its language or other things and they think about it, they use it and they'll make their own rules about it. And you don't impose an adult view on them, you see and appreciate it from their point of view. One formula I teach my students is, see how different children are from you, which is very easy to see as they are not reading or speaking like you, but also think about what they know about reading and writing.

SS: So, developmental perspective teaches us the importance of approximation in reading. I would still ask you to please tell us more precisely what is meant by emergent literacy?

SHS: Three or four points. First of all, that you don't see literacy as either-or, that the person is literate or that person is not literate. Just as in oral language, you don't say to a child that NOW this child is speaking, at three or four years or whenever. You value even the earlier attempts of the child and you respond to them. So, in early literacy, one of the things was getting rid of this either-or dichotomy. You see literacy development in a continuum including even earliest attempts, in reading and writing. For example, this classic case when a researcher didn't pay attention to her child, the child wrote R U DF, for "Are you deaf?"

Of course this is not how adults write. But here you start seeing what is the child actually paying attention to. And it's not really bad, the child listens to the main consonants and how they are conveying the meaning. Now, if you don't use an emergent literacy perspective, you'll reject it because it is wrong, this is not how we write. But if you look at it from [the] children's point of view, they know some things, they are not zero. The researchers did studies of children's scribblings, and they noticed that the children knew things like directionality, and their early writings look a little bit like words although they are not real words. The researchers studied scribbling in different languages like Hebrew, English and all; and found that children's scribbling actually resembled the language in which the children were being raised. So, the child observes and tries and we don't reject that. I think it is a pity that if you don't use a developmental perspective in literacy, you lose all that data. I mean two children who are showing different levels, you reject both of them thinking that they are not correct. Second thing is that in early literacy, you also include more functional aspects of reading and writing. So a child does something with reading and writing with the help of another adult probably. Maybe an adult can write what a child dictates. or later on the child writes the main sounds of her name, or you read a story and the child enjoys it. Maybe the child doesn't read it alone, she reads it with an adult, who reads it to the child, but it is still reading. Maybe the child rereads it with somebody else, the story that an adult has read to her and she is kind of guessing based on the pictures, that is pretend reading. I have known parents telling me that children are not reading, they are just pretending to read. But in emergent literacy we would call it reading, developmental reading. These are their legitimate attempts to literacy. Even when the child dictates a story and somebody else writes it, the child's effort is there because she composed it and she can see that in writing. Let me give you an example of a very interesting assessment process. Suppose two children are dictating a story to you and the first one just keeps on dictating,

does not pay attention even when you are writing slower than her speaking. The other child stops when she sees that you have not yet written. The two children's behaviour is different. The first one doesn't know what print and sound correspondence is, the other one has figured that out. So, it is yet another developmental stage. To sum up, approximation is accepted, which is a legitimate thing, it's not either-or, it is in a continuum, it's functional, and you can do it with a more expert person. All of this is fine!

SS: It's very interesting as it opens up a new conceptual understanding of literacy, where every effort by a child, whether in writing or reading, is development.

SHS: We see, even though people have not studied child development or language development, how do they talk even with very small children? You match your language with what children are saying, approximate it, and complete it for them; and you never say that children don't know. In fact, parents are very proud even if their child can say part of the word. They will brag about it, sometimes even bore people with stories about how their child said something. But the moment you go to a classroom, in a formal setting, you forget what you already know about children and expect exact things.

NC: Historically, how did the understanding evolve from a step-by-step process of decoding to a continuum or emergent literacy?

SHS: Around the 1950s and 60s, the impact of Chomsky's work was felt in many fields, and around the second half of the 1960s, when the seminal work of Goodman came out, things started changing. One of the things that Chomsky did was to very systematically attack the behaviourist psychology of Skinner, who was so dominant at that time. What used to happen in early literacy at that time was step-by-step practice of different parts, like visual perception, auditory discrimination, visual discrimination, and so on. You saw it mostly as visual, you look at the symbols and convert them, basically you decode, and that was reading. Goodman viewed it very differently; and one of the phrases that he used was, "reading as psycho-linguistic guessing game" (Goodman, 1967). Now look at this change; from the accurate perception to what he was talking about—guessing game.

SS: This is while reading?

SHS: Yes, while reading ... the reader does something, quite a bit in fact. One of the reasons why the reader has to be very active is because accurate mapping of the oral language into the text is not possible. Let me give you an example. You take a word like "nirapraadh" (नारिपराध), it's one word, right? I give this word sometimes to my students and they say "nir-paraadh" (नारि – पराध). That's not wrong actually, but if you say "nirapraadh" – नारि – अपराध, you are using your prior knowledge of the word to choose this alternative. So even in Hindi, where we are very proud that we do exact mapping, it is not possible. And another shift that was happening was that instead of merely decoding, they started seeing reading as comprehending. They were now thinking about the active role of the reader. They thought about the prior knowledge (schema) that you bring to reading. You can "read" a sentence, but you may not know what it means. In their experiments, researchers developed those kinds of sentences. For instance, one was, "The notes went sour because the seams split". Now if you look at each word, they are quite simple-notes, went, sour, seams, split. We know all these words. And yet sometimes, the sentence just doesn't make any sense. But if you are thinking about a musical instrument such as bagpipes, all of a sudden it makes complete sense. So they did a lot of experiment, which established that the

background knowledge of the reader about the topic was very significant.

SS: See, when you say that one thread is coming from the Chomskian critique of behaviourism, as a result of which the focus shifted on the reader, the effort that the reader makes. But where do you place Goodman's work and Frank Smith's work in this?

SHS: Frank Smith, in fact, if I remember correctly, actually acknowledges Chomsky's work. They were all influenced by that. And they were, I think, also getting a bit saturated by people who were working within the behaviouristic framework. Many of reading researchers were beginning to see that a strictly behaviouristic perspective was not able to explain the complexities of reading process. So they clearly acknowledged Chomsky's work.

SS: But people are able to learn reading and writing through phonics and decoding method. How?

SHS: But you have to ask yourself if that is all that they were doing? It is true that even now in schools, the focus is on phonics, but is that all the exposure that children from literate homes are getting?

SS: So the emphasis in the classrooms may be on phonics, but actually a lot more is happening in their lives, because of which such students end up learning reading and writing.

SHS: Yes, if you come from a literate environment where things are happening, and you are also seeing print everyday around you. I think the phonics method is more damaging to children who come from low-literacy homes. However, exactly the opposite argument is made generally, that they need to know phonics, otherwise where will they pick it up from? Only phonics, that is. And I have a lot of problems with that because children need to see that literacy is functional, and it should be interesting. All these messages, children don't get in school.

SS: I think it is important to underline this fact that children coming from lowliteracy background are forced into a very rigid process of phonics and decoding.

SHS: Yes, nowadays, they use the term balanced approach, but sometimes you feel that the swing is more towards phonics and decoding.

SS: What is 'whole language approach'?

SHS: It is not easy to define all these things, that is the whole language approach or the balanced approach. Goodman had written this book, What's whole in whole language? He says that first of all, all the language systems should go together—syntax, semantics and phonics—because the language is broken if you remove any one of those components. But he also elaborated later in his work, that for a language to be whole for anybody, it has to be relevant and interesting. If you are just drilling something, he said, it won't be a whole language.

In India, we should be really worrying about why comprehension did not hold a major place in reading instruction. And why do we just look at it as a product, why don't we try and engage with the process?

SS: So, reading is for comprehending and meaning making, not first uttering the words "correctly"?

SHS: I would go even further. I follow Rosenblatt's writings, who says that you engage with the text in multiple ways. Sometimes we feel that we read to get the information. But we also engage with the text for "lived through" experiences in stories and literature. Why don't we teach that to our children? SS: Shouldn't this be common sense, that reading is for comprehension?

SHS: They will all tell you that reading is for comprehension and you wait, you'll get there one day. First, children need to learn decoding and all that stuff! They just don't understand that in a conducive environment, the moment children see written text, they begin engaging with it, reading it.

One very poignant instance in Professor Krishna Kumar's "Ashok ki Kahani" was about a 2nd standard child in Madhya Pradesh reading lines about "ye pathaari ilaka hai", which is where he lives. Every day he crosses that area to reach school, but he makes no connection. He doesn't know that you can connect it with your life, or with surroundings or anything like that. I would really like you to note this point, that comprehension and engagement hasn't become a very important part of the reading discourse in India, which has its consequences.

SHS: You see, if you look at the discourse of reading, it is not very well developed in our country compared to others, but it is getting more attention nowadays. And I must say that in the "Padhe Bharat, Badhe Bharat" and "Mathura Pilot Project", an NCERT initiative, they do talk about comprehension very specifically. But when the draft of "Padhe Bharat, Badhe Bharat" was circulated, one NGO was very angry, and wrote that reading is decoding. All the other things like print rich environment should be put on a supplementary list, the key thing is decoding. So, where do you hear about comprehension as a main source of concern or worry? Where do you hear people talking about engaging with the text?

SS: And what about research in literacy?

SHS: First of all, compared to what we need to do in terms of literacy, we are doing very little. Then there are no

systematic efforts in research and theory building. Since I came here in 1996, most of the time I am making an argument about the importance of literacy, literacy education, literacy research, lamenting that it is ignored. Our knowledge base is very weak. Some people do literacy work intuitively, some good work also. But systematic knowledge base, theorybuilding, this is not something that we have done.

Lack of understanding on the developmental perspective is just appalling. I remember reading an article where children's "early writing" was described as "crude attempts to writing" [sic]. If you had a developmental perspective, will you call early writing a "crude attempt to writing" [sic]? This is because we don't have a research culture. If you had studied more intensively about invented spellings and all, which has been around for a while, why would you call children's early writings "crude attempts to writing" [sic]?

One more important thing is that a lot has to be invested in building teachers' knowledge; the teacher has to be knowledgeable. Also, the question is, how much do we trust our teachers? Also, are we capitalizing on ideas that work in our country? Do we have even descriptive accounts of that? Not having a research culture is really detrimental to our own understanding.

SS: How does this impact classroom teaching?

SHS: Once I was asked a question that in a class of 70, how can you do this? And my answer was, in a class of 70, every method, even phonics, would collapse. But let me tell you, even in classrooms that I have observed which had 20 or 15 children, there were problems because the basic understanding was not there. We don't realize that even if you have created somewhat more optimal conditions in terms of the student teacher ratio, teachers' understanding is still very crucial. You actually have to invest in the teachers, trust them and trust the children as well. Even in a very conventional classroom, you can devote some time to Language Experience Approach, writing morning messages, reading aloud and letting children turn over the books, feeling comfortable with the content reading or their book talk. Start with that, at least give them scope for doing that slowly. Teachers also need to interact with each other and talk about their experiences. So you have to actually capitalize on teachers' experiences to develop a more robust program.

NC: Our school education is mostly examoriented. What kind of changes are required in the evaluation system to make literacy acquisition more meaningful?

SHS: Of course, evaluation is very closely tied to the size of the classroom. As I said, if you have a huge classroom, then evaluation based on observations becomes difficult. Observations are a very important part of early literacy assessment. Some of it was happening in the Mathura Pilot Project, though not to the fullest potential. Teachers were writing diaries or comments on what they saw children do. For example, if you have a reading corner in the classroom, how many children are going there? Or, which child is never going? But you need some support to do these kind of very important observations. By that I mean, one needs to observe what children are actually doing. What kind of texts they are inclined to read? What kind of discussions are taking place in the classrooms, and so on.

SS: Are some studies happening here in India?

PS: Yes some, but there is not much emphasis on engagement with reading; relatively more focus is on aspects like phonological awareness. In Delhi University some of my students and I have tried to do a few studies. In these studies, we have tried to see what happens in literacy at the pre-school levels. The studies are done at different stages.

NC: Is the emergent literacy concept implementable in Indian schools?

SHS: Many researchers in India say that an early literacy model is not relevant to India because it is talking about a different, very literate context—countries like New Zealand, United States, UK, and all those places. My question is, how much do we understand our own context in India? I had to rethink the term "nonliterate" when I did my field work in Jharkhand, Very quickly, I realized that this absolute term doesn't do justice, because children interacted with their school going siblings, their neighbours, and dealt with some form of literacy. So they had some ideas of literacy. Remember, I said that the onset of literacy is not schooling, its way before that. Therefore, first of all we need to study, really do a lot of research in what are children really thinking? What do they come with to school? And that itself is a challenge.

NC: Do these concepts, that we use in the classroom nowadays, such as "reading readiness", need either to be done away with, or to be thought about again?

SHS: Reading readiness has its own history of many kind of ideas. If you call children's attempts legitimate, then where is this question that they have to be ready for reading? They are already reading from the point that they start, to the point they become a conventional reader. It's a continuous development.

SS: Is reading readiness contradictory to the understanding of emergent literacy?

SHS: Yes, it is. Emergent literacy came challenging "reading readiness" heavily. You can look at some of the earliest reviews, like Sulzby and Teale (2003), Teale and Sulzby (1986), very famous ones, which used the term "emergent literacy". They talked about the critique of reading readiness and why it didn't work. At that time, reading readiness was under a lot of behaviouristic influence, which was challenged. But unfortunately, this term is used even nowadays in programmes in India. We don't engage with the terms very seriously, we don't really get into the depth, its history. You should always be looking at its critiques, you should always be looking at the nuances.

SS: So, the important point you are making is that reading readiness was critiqued and discarded in the West in the 1980s itself?

SHS: Yes, it was. Originally, reading readiness comes from a maturational perspective, which was applied even to physical things, that if you can hop, skip and jump, then you are ready to read. It was all about motor coordination, then visual perception; implying that you could divide it into 30-40 subskills. When you capture all those, then you move towards letter, then finally you read. But one crucial difference in America was that even in very bad programs, there is a library culture. Somebody sitting and reading out stories to children, teacher reading a story, even if she did it only after lunch to settle down very noisy children. Here, none of these things are happening in the classroom context.

NC: How do you see the first language of the learners connected to the acquisition of early literacy, especially in a formal educational set-up?

SHS: See that plays a very significant role. For example, you take one approach that is very important, which is called Language Experience Approach. In this approach, a child tells the story, and a more experienced adult, generally the teacher, would write it down. The adult is supposed to write it exactly as the child is narrating. The child may not know the written language exactly, but will be able to see the correspondence of the oral and written language, and many things can happen. In the first language, obviously it is going to work. The child can tell a full story which the teacher can write. But, it also depends on the approach. Sometimes, the first language also becomes alien, depending on the way it is taught in the classroom. "Ashok ki Kahani" is a case in point. If a child is reading a text like "chal ghar par ihat-pat", what will she comprehend? You don't comprehend independent words, it has to be a whole text. So, the approach is very critical. And you should know the theoretical reasons why you are accepting children's language. You are not being sentimental, sweet, gentle or magnanimous in accepting students' languages. Theory informs us that these are valid language systems.

NC: If English is forced on students, how does it impact their learning?

SHS: In a multilingual country like India, I don't think you can start with one language, whether it is English or Hindi, or some other language. For example, children of migrant population speak different languages at home. Now is it possible in a school to provide literacy in all those languages, even if there is a policy that they have the right to get instruction in their mother tongue? I am not quite sure how that's going to happen. But I favour that you begin in two languages, it doesn't have to be one language.

Also, we don't capitalize on children's ability to pick up another language without inhibitions. The root cause of the problem is that we reject a child's own language. In a typical Indian classroom, a child is constantly interrupted/corrected for reading/speaking in her language. Thus, the first thing is that the classroom becomes insecure for the child; and second is, due to insecurity, the child will start resisting. The child will feel that her language is under attack. She will become silent and stop engaging.

There is something called additive model; you know your language and you learn one more. I say "roti" at home and learnt to say "fulka" here in Delhi, right? But we are stuck with things like why did you say "machhi" and not "machhli"? And that is a major damage that you do to a person. You or the teachers also need to learn, right? For example, I don't know Bhojpuri, but if I am with children whose language is Bhojpuri, I can also start engaging and learning about it, right? Therefore, the model should be additive, that I have mine but I am also adding to it; and not that to learn this language. I have to give up mine.

SS: Are you saying that not using the additive model has consequences for reading and writing, along with devaluing the students' experiences?

SHS: Major consequences for reading and writing. See, reading and writing has simple rules that the more you immerse, the more you learn. And if in the class the children are constantly interrupted to speak properly or speak in one language, then they will feel scared and not speak at all. Remember, rejection is more because of your language than because of your dress. It is going to be the same in reading as well as in writing, constant interruption, correction and rejection. If we as teachers accept diversity, then students would also do that. One last thing, which I will say a hundred times, that there is need for honest research to understand a child's point of view.

SS: Any other issue that you would like to raise in the context of literacy that we may have missed?

SHS: Yes, there is one more thing that you have not asked me. It is about the discourse on script, which is very dominant in India. The argument is that our languages are alpha syllabic unlike English and Latin, which are alphabetic. So, our languages are more consistent; and the research that is done on English and Latin doesn't apply to us. One, this is a very narrow conceptualization of reading. For example, I said about Goodman that he was talking about semantics, syntax, everything. He was not discussing script only. Then how can you say that research is not relevant here? To me, the centrally important issue that we have to remember is: we are educators dealing with children, and not technicians of language. We need to know the children, their social background, their languages, their other developmental issues, everything; and we don't do that. It was also said that they (the western societies) are more literate, unlike us. So first of all what I have to say is that we should document the form in which the print resource is available in our environment, and how children are viewing it. And secondly, that the context is different, so it doesn't apply to us, their script is different, etc., are not valid arguments. It is clear that literacy in the context gives children more opportunities for immersing in literacy and also, for hypothesizing. So shouldn't we give them more opportunities? Can literacy be achieved without such opportunities, through short cuts of having one book? Research shows that there are no short cuts to literacy. The opportunities will have to be created, more investment will be required to have more children's literature, more exposure to print and less rigidity.

NC: Thank you so much for all that you have shared with us, what we asked, as well as for adding to it. It was really an enriching experience.

References

Goodman, S, Kenneth (1967). Reading: A psycholinguistic guessing game. Researchgate.net publication.

Sulzby, E., & Teale, W. H. (2003). The development of the young child and the emergence of literacy. In J. Flood, D. Lapp, J. R. Squire & J. M. Jensen (Eds.), *Handbook of research on teaching the English language arts*, (pp. 300-313). Mahwah, NJ: Erlbaum.

Teale, W. H., & Sulzby, E. (1986). Introduction: Emergent literacy as a perspective for examining how young children become readers and writers. In W.Teale & E.Sulzby (Eds.). *Emergent literacy: Writing and reading*, (pp. vii-xxv). Norwood, NJ: Ablex.

Landmark

Languages of "Instruction" and Abstraction, Languages of Doing and Feeling

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Abstract

This paper examines the language related problems a social science educator faces when she is faced with children's inability to comprehend texts, to articulate their experiences and views in the class room and to write them down in the normative language. The paper argues that their roots lie in our conception of knowledge, social access to knowledge and preservation of social order based on inequality. South Asian intellectual tradition has been shaped by a long and sustained debate on the nature of knowledge and its articulation in language and the role of language in sustaining and challenging social hierarchies. It recognizes the power of language in mediating social consciousness and also academic practices. Bernstein has drawn our attention to the role played by language codes in maintaining hierarchies in school education. If language can be used for domination, it can also be used for challenging it. Recent Dalit literature demonstrates the rich possibility which 'dialects' hold. The paper concludes with a set of possible curricular and pedagogic practices that can build on such possibilities to make social science learning a transformative experience. In the course of designing the social science curriculum for middle schools in Madhya Pradesh, the issue of language kept cropping up in many ways. We (Eklavya Social Science group members) were developing readings in Hindi which were more accessible to the children and the teachers of these schools. (Batra, 2010:42-105 for a detailed report) The teachers had repeatedly complained that the text book language was incomprehensible for the children, and often even for the teachers. Their one major request was to "simplify" the language of the books. They even agreed to using longer textbooks, provided the children could understand them without too many explanations.

In the early 1980s (and perhaps today as well) teachers typically read out a passage from the book and explained its import in Bundelkhandi or Malwi dialect. However, they faced severe problems in explaining texts which had abstract concepts (such as jurisdiction, temperate zone, etc.) and words pregnant with meaning. They eventually wrote out the answers to the questions at the end of the chapters on the black board in standard Hindi, often copying passages from the text book. The children wrote the answers many times over and memorized them so as to be able to reproduce them in the examinations. The language of the textbooks and the languages of the students and teachers, simply did not intersect.

It took us years to unpack the import of this problem as we began with a naïve understanding of what it meant to "simplify". To us it meant creating graphic images of a phenomenon in simple colloquial Hindi, (bol-chal ki bhasha), gradually introducing a conceptual term and reinforcing it with carefully designed exercises and redundancies. Thus, each major concept was introduced with a rich narrative, which explored the many dimensions of the phenomenon described by the concept. Once the idea was consolidated into a conceptual term, it was reinforced by repeated usage in comparative contexts. We thought we had done a good job of it. All this helped of course; but it also opened our eyes to new problems. We had intended the text books not just for comprehending, but also for opening a dialogue in the class room. A dialogue in which the students discussed the merit of the issues raised and also brought their own experiences to evaluate or elaborate upon the ideas in the book. The classroom discussions usually took place in Bundelkhandi; they were often animated but incomprehensible to us. The teacher would sometimes come to our help, but when he/she got excited or angry with the text, he/she could express himself only in Bundelkhandi. So far so good.

When it came to writing answers, we hit a serious road block. The questions were in standard Hindi (manak bhasha) and the answers were expected to be in the same language. It was virtually impossible for most children to compose and write down a paragraph in standard Hindi. The teachers helped them out by writing the correct answers on the board for them to copy in their notebooks. But we were not in favour of such uniform and correct answers. We wanted each child to analyse independently and add their experiences and observations to the answers. The children were most comfortable with copying related passages from the book, but they had great difficulty in writing even one sentence on their own. We began to privilege those who wrote in "their own language"—that is, did not copy from the text book—with extra marks, but to little avail. On the face of it, the problem was a linguistic one, in the sense that children had difficulty in composing answers in Hindi. However, it was much more than that, the children and also the teachers were convinced that they could not be writing something correct if it could not be found in the text book.

Writing your thoughts in your language is something alien to our education system. Children could speak about their ideas, but they could not write them down. Evaluation however required them to write. We were seriously considering shifting from written to oral forms of evaluation when the government closed down the programme on the plea that these children were being used as guinea pigs.

Looking at children's scripts, we also realized that while our method helped them to deal with concepts better, the goal of precision and clarity which the application of concepts requires was still far away. The children remained comfortable with narratives and the possibility of diffused articulation. Fixing meaning and eliminating alternative possibilities was however not something they were comfortable with.

It took us a lot more time to realize that the shift from oral language to written language and narrative to conceptual text, required major shifts in patterns of thinking and a great discipline of the thought process itself. What we were confronting was not so much to do with inadequacy as it was to do with resistance; resistance to the disciplining.

Later still, while working with textbook writers in different SCERTs and even NCERT, we came across a singular insistence on a highly formalized and sanskritized Hindi and resistance to anything that appeared to be colloquial (chalu bhasha) or "foreign" (videshi). Diverse reasons were given for this, "There is no end to the dialects, how many can we accommodate? This is not respectable enough. This is not Indian. This is too casual for textbooks...." There was more to it than an insistence on purity or formal language. However, this kept eluding us until a world of explanation was opened up by an investigation into the millennia old debates on language and truth in Indian philosophical tradition.

Languages of Power

Brahmanic philosophical tradition in general and Purva Mimamsa in particular argued in favour of the eternal nature of truth as well as the purity and fixity of the language used to express it, which too had to be eternal. Strict adherence to grammar (which had not been corrupted by dialectical usage) marked the purity and fixity of the Sanskrit language which alone was considered capable of expressing the truth. In essence, the tradition sought to negate any dialogical character of truth or ambiguity in expressing it. Kumarila Bhatta (7th Century CE?), a brilliant exponent of Purva Mimamsa, contrasted this with the rival Buddhist contention of conditioned and transient nature of everything, including truth and language.

The Buddhists not only denied eternal quality to everything including language, but also asserted that the relation between the word and what it signifies was a matter of convention, without any sacred or eternal sanction behind it. On the other hand. Truth. to the Mimasakas could not be transient or conditional, it had to be eternal and unconditional. Kumarila dismissed the truth claims of the Buddhists and the Jainas, because their scriptures were in the vernacular, with vocabulary with shifting meanings. stating "when the words themselves are unreal, how could the objects denoted by them be accepted as real?" (Jha, 1924, p. 235). To put it simply, truth claims cannot be made in dialects or languages liable to change and corruption.

In contrast with the Brahmanic obsession with purity of language and fixity of meaning and eternality of truth, the Buddhist tradition opted for the very opposite from early on. When two monks suggested that the sayings of the Buddha be fixed in the language of the Vedas (Chandas), the Buddha explicitly forbade them. "You are not to put the Buddha's words into Chandas.... I authorize you, monks, to learn the Buddha's words each in his own dialect" (Pollock, 2006, p. 54). This essentially amounted to a license to reinterpret and restate the doctrines based on engagement with local experiences.

It appears that the Buddhist doctrine of conditioned origin of everything including knowledge, enabled it to get over the anxiety around fixity of knowledge and opened the possibility of using dialogues to determine knowledge. This in turn opened the gates to the use of multiple dialects and indeed languages.

Sheldon Pollock traces the transformation of Sanskrit from a liturgical language confined to sacrificial rituals, into a language of secular poetry and sastra. This was accompanied by the use of Sanskrit kavya to build and legitimize royal power during the 1st millennium CE. Grammar based systematization of Sanskrit was central to this transformation, which enabled it to create a cosmopolitan literary-political culture spread over most of South and South East Asia. While all languages and dialects have an implicit grammar and are rule based, spelling it out in a text enables the practitioners to fix and formalize usage and meaning. Thus it is possible to restrict and channelize the fluidity of language use over a larger span of space and time.

Sanskrit became the language of power in this entire region as Sanskrit kavya was used in prasastis to consolidate and express royal power. However, imperial languages require the "dignity and stability conferred by grammar", to convey the power wielded by the king. At the same time, grammatical correctness had a more important role.

Grammatical correctness on which was founded the correct language became coterminous with political correctness and preservation of a hierarchical social order. The poetic technique of slesha (use of words with double meaning) was used to transfer the many meanings of the term varna (colour, syllable and caste based social order) to different contexts. Just as grammar maintains varnas (syllables) in place, the king maintains varna-ashrama dharma or hierarchical social order. Thus, grammatically correct language became central to maintaining social hierarchies (Pollock, 2006, p. 183, 255).

One may add that such a penchant for "grammatization" was not intended as much for standardizing and creating a universal language as for reinforcing social and varna differentiation, by putting some languages on a higher pedestal. Down the history of India, language became an important marker of caste differences. In popular imagination in India, "grammar" is the marker of a language as opposed to a dialect, which is not supposed to have a grammar or script of its own. What is meant here is the existence of a grammar text which controls language usage so that it is not subject to "degeneration" of day- to- day colloquial usage.

This civilizational obsession with grammatically correct language and spelling (varnasthiti) may explain the deep resistance of Indian school teachers to allow children to explore spellings and sentence constructions on their own. In contrast, Anglo-American pedagogy uses this extensively as a device for teaching children to read and write. In a varnaordered social world, language is also a marker of caste status. Thus grammatization is really an instrument for separating the language of the upper castes from that of the lower castes and not for creating a single standard language. We shall presently consider how Sanskrit and grammar entered the picture in our school education.

Matribhasha Vikas Parishad, an organization dedicated to promoting the use of Hindi technical terms, went to the Supreme Court to ensure that school textbooks used these terms. Sometime in 2004-2005, the National Council for Educational Research & Training (NCERT) textbook writers were notified that they were bound by a Supreme Court order to use technical terms developed by the Standing Commission for Scientific and Technical Hindi Terminology (under Ministry of Human Resources Development), something they had resisted so far. These terms were found to be too difficult to be used as substitutes for colloquial words, used till then. (For details see, http://csttpublication.mhrd. gov.in/english/documents.php) However, the Supreme Court order had to be complied with. The problem with the work of the technical terms commission was its highly sanskritized terminology with outlandish sounds and spellings. In fact, this penchant for Sanskrit was not an innovation of the Commission. It was its mandate that had been derived from the Constitution of India itself. Sections 343-351 of the Constitution try to strike a complicated balance between the warring language interests in the Constitution Assembly, instead of cutting through the Gordian Knot. In the final section on the issue it states:

351. It shall be the duty of the Union to promote the spread of the Hindi language, to develop it so that it may ... secure its enrichment ... by drawing, wherever necessary or desirable, for its vocabulary, primarily on Sanskrit and secondarily on other languages. (emphasis added) (Article 351, Constitution of India)

Privileging Sanskrit in the development of a new vocabulary for Hindi affirms a belief in the Sanskrit origins of Hindi. It also seeks to inherit for academic Hindi, the literary and social prestige of Sanskrit, which by the middle of the 20th century had been reduced to a Brahmanic liturgical language. Further, it revives the old Brahmanic notions of fixity of knowledge, word meaning and language use and social exclusivism in an era of democracy, science and linguistic admixtures. The NCERT, by the dictum of the Supreme Court at the instance of the Matribhasha Vikas Parishad, was forced to fall in line despite its serious pedagogic reservations.

The Power of Language

The forgoing discussion may seem to indicate the need to exorcise the Brahmanic ghosts from our education system and the public sphere in general. However, as the profound insight of the Buddha tells us, the language we adopt has deeper connections with our notions of truth and the sociology of creating and articulating knowledge. Is truth to be seen as fluid, changing and conditioned, and knowledge to be produced and expressed through democratic participation and dialogue? This will decide what kind of language is adopted.

While we physically inhabit a material world, we simultaneously live and function in a world created by language and discourse. As Sheldon points out, it is this ability and power of language to create a world, that Brahmanic grammar and kavya sought to control and channelize.

The power of language to express reality, shape it, even pass off the un-real as real, and condition action was well understood and theorized upon for a long time in South Asian scholarship. Bhartrihari, a contemporary of Kumarila for example, made some path-breaking discoveries in this regard. He declared, "There is no cognition without the operation of words; all cognition is shot through and through by the word. All knowledge is illumined by the word." (Murti, 1997, p. vii; Coward & Raja, 1991) Recently, this has become a major theme of post - structuralist speculations on the mediation of language and discourse. R. Kosseleck for example, has written about the mediation of language in social life, recording or remembering the past and in the interpretation of the past.

... language becomes the primary factor without which no recollection and no scientific transposition of this recollection is possible. The anthropological primacy of language for the representation of past history thus gains an epistemological status, for it must be decided in language what in past history was necessitated by language and what was not. (Koselleck, 2002, p. 27)

Education is yet to digest the implications of this revolution as it is still caught up with language as a medium of communication and expression. Of course, there have been some exceptions such as Basil Bernstein, whose theory of codes of language has been somewhat influential in understanding how education reproduces inequalities.

Experiences of a society can be comprehended either in and through its own language, or through the language of another society, or as it happens most often, through a dialogue in multiple languages. The case of Sanskrit scholarship brings to fore this central problematic of academic enterprise. The academic, being a member of a class often with claims to maintaining distance from the principle protagonist social groups, and at the same time being a transnational strata, speaks and comprehends reality through a very special language. To begin with, these languages have much in common with what Basil Bernstein describes as "elaborated code", which is unemotional, and favours analysis, abstraction and generalization. Most folk languages

function in concrete and shared contexts, using the rich physical and metaphorical resources of the context, supplementing the words with gestures, expressions and other visual codes. If the "elaborated code" is rich in abstract concepts, the "restricted code" is rich in metaphors, proverbs and allusions to folklore, shared and constantly reworked by the community. More often than not, silence is a potent language used with great effect, but whose meaning is comprehensible only within a shared context.

Academic language, even when used with empathy, has limitations in comprehending and describing the experiences enshrined in the folk languages. Often, it ends up as humorous lace to pepper the academic text. The depth of feeling emerging from a very rich and nuanced life activity and experience, and the fine variations experienced by people of different ages in different gender groups is almost irretrievably lost to academic imagination. Nevertheless, despite its impoverished perception, it can create a tantalizingly powerful narrative of the reality, used then by those in power and in policymaking to determine the larger course of history. Schooling then is used to share this narrative with the folk and share in a manner that obliterates their own perceptions and acquiesce in the new narrative doled out.

Challenge of the Marginalized Languages

Hazariprasad Dwivedi described the poet Kabir as a "dictator" of language. What he meant was that Kabir forced language to express his ideas by twisting and turning it at his will and language complied helplessly (Dwivedi, 1992, p. 171). The language of Kabir is characterized precisely by those features which imbue a "restricted code". It is full of metaphors and proverbs, it colloquializes technical terms drawn from philosophical discourses (yoga, vedanta, etc.), it profusely uses paradoxes and "sanjabhasha" whose meaning is never fixed and is left to the audience to interpret and make sense of. With his disrespect for grammar, he thus turns the argument of Kumarila on its head: corruptibility and fluidity of meaning of words is essential to express ideas about the final truth, to question what has been taken for granted and fixed and to lay bare one's deeply felt pain and anguish. Thus, the apabhramsha becomes the vehicle of the most oppressed, downtrodden and excluded, while at the same time serving the purpose of talking about the most abstract philosophical and metaphysical truths.

Like the Buddha, Kabir preferred the oral tradition, entrusting his ideas and language to the masses to rework, restate, add and subtract.

Dalit literature in what are considered dialects of Tamil, Telugu, Marathi, etc., in recent decades has posed a serious challenge to professional social science writing to make sense of a vast reservoir of human experience, which was hitherto lost due to the eclipsing of a range of apabhramsha languages. These relate to fleeting pains and pleasures of labouring women and children in groundnut fields: to the transformation of marginalized and oppressed persons into gods and goddesses feared, loved and worshipped; to the working of caste societies. Languages which were not considered capable of being printed for a wider readership were transformed in the course of a couple of decades into literary languages, which broke the impasse of upper caste literature.

I would like to posit that formal academic scholarship has a compulsion to develop a language and a kitbag of concepts, which needs precise definition and fixed meaning. However, the more this enterprise succeeds, the more it turns away from, and indeed obliterates languages and expressions which are more closely tied with life, labour and struggles of diverse peoples. This in the long run only impoverishes the academic language and its ability to penetrate social reality. Perhaps we need to work towards a via media where the two languages are able to listen to each other and understand each other. The current spate of subaltern literature would not have been possible but for a close acquaintance with scholarly literature on caste, gender, post-modern culture theories, etc. This literature has not only used the conceptual baggage of academia but has made deep inroads into professional print media. Formal academic language has to take cognizance of this phenomenon and come to terms with it.

Teaching Disciplines and Language Indiscipline

With this I return to the language of school education in general and social science learning in particular. The real issue is not the alienness of the "medium" of instruction (whether English or Hindi or Tamil) but the very idea of instruction. It denotes a hierarchy and fixity which does not allow comfortable entry to even native speakers. It is time we abandon our mistrust of children's ability to learn languages even of distant people, and instead introspect on how a language becomes inaccessible to them.

Even a cursory reflection on the issues raised here will indicate that we need to vastly expand the scope of orality in our education. Presently, it is based so heavily on negotiating the printed text that, what little oral exchange occurs is devoted to explaining the wisdom enshrined in the texts or repeating them as a proof of comprehension. There is a need to open up spaces and time for children to speak extensively with each other, with the teachers and with the community in general. The task of the educators then would be to structure these oral conversations and draw from them pertinent conclusions to reopen new conversations.

Another way in which the weight of text can be reduced in education, is to use multiple forms of representation, visuals, performances and encounters with the world of practice. Our textbooks have only recently woken up to the possibility of illustration and design (even this is perhaps fleeting). In an age when technology bombards our children with powerful images, reliance on texts may be somewhat welcome, but it will be a poor response to the new technologies. Technology enables us to enlarge the scope of "total experience", which in turn opens up possibilities of multiple oral dialogues and lines of abstraction which can then lead to diverse kinds of texts.

A second major "take away" would be to open up spaces for multilinguality in the textbooks, library books and in daily conversations. Today we are better positioned to do this, thanks to the assertion of diverse dialects, voices and their literarization. Teachers have a problem with multilingualism because they are worried about their inability to comprehend the meanings of diverse dialects. However, if we shed the anxiety of comprehension and correcting deviations, we can appreciate the vast new dimensions of speaking from the heart. Eventually the problem of comprehension too can be addressed.

An important implication of this discussion for social science education would be on the teaching of concepts. By and large, teaching concepts and demarcating their meaning have been a major concern in education. Much of the meaningfulness of social science education springs from its claim to build an arsenal of concepts necessary for social analysis. These concepts appear as fixed entities governed by a grammar of definitions which need to be absorbed intact and used appropriately. Social sciences can do with some fluidity in this area. This can be easily done by combining concept teaching with another important objective of social science teaching, namely historicizing and spatializing phenomenon. Historicizing and spatializing key concepts such as tax, class, king, democracy, industry, demand, supply, colony, etc., can demonstrate that the meanings of these words have never been fixed and have in fact evolved over time and space through much negotiation. For example, the term for tax in Sanskrit is "Bali", "Irai" in Tamil and "Kharaj" in Persian. Each of them are rich in connotations and have meant different things at different points of time and even simultaneously. This would be true of virtually all concepts. Demonstrating the variation in the meaning of a concept will go a long way towards relaxing the inflexibility of academic language usages.

Another takeaway would be to reinforce an important objective of social science education, namely to empathize with diverse points of view of a phenomenon by investigating into its impact on diverse social groups. Phenomenon such as industrialization, nationalism, Green Revolution or Blue Revolution meant different things to different social and ethnic groups. Listening to them in their own language will go a long way towards making truth conditional and transient as the Buddha had pointed out. It will also force us to develop new concepts to grasp the complex reality and practices. Many categories that we use indiscriminately, such as farmers, workers, housewives, transgenders, tribals, etc., will dissolve and be replaced by more nuanced

categories. Above all, the critical apparatus—methods of evaluating the sources of information and categories and concepts and frames of problems—will become much more sophisticated when confronted with a range of sources and issues. of the apabhramsha, the corrupt language, and allow our children to articulate their views in their own way and language, spellings, words, codes or what have you. As Bhartrihari said, apabhramsha too can communicate and that is what matters.

To me the most important take away is the last one. We need to abandon our fear

References

Batra, Poonam. (Ed). (2010). Social science learning in schools: Perspective and challenges. New Delhi: Sage.

Coward, H. G., & Raja, Kunjunni (Ed.) (1991). *The philosophy of the grammarians*. Princeton: Princeton University Press.

Dwivedi, Hazariprasad. (1992). Kabir. Delhi: Rajkamal Prakashan.

Jha, Ganganatha, (Translator) (1924). Kumarila Bhatta *Tantravarttika, Vol 1*. Allahabad: The Asiatic Society of Bengal.

Koselleck, Reinhart. (2002). *The practice of conceptual history: Timing history, spacing concepts*. Stanford: Stanford University Press.

Murti, T. R. V. (1997). Introduction. In Harold G. Coward (Ed.). *Sphota Theory of Language: A Philosophical Analysis*. Delhi: Motilal Banarasidas. (pages vii-xv)

Pollock, Sheldon. (2006). *The language of gods in the world of men*. Ranikhet: Permanent Black.

Book Review

Influence of English on Indian Women Writers: Voices from Regional Languages

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Influence of English on Indian Women Writers: Voices from Regional Languages

New Delhi: Sage. (224 pages). Rani, Suneetha K. (2017). ISBN: 978-93-81345-15-3 Reviewed by: Neema Chaurasiya INFLUENCE OF ENGLISH ENGLISH WOMEN WRITERS WOMEN WRITERS WOMEN WRITERS

This book provides an alternative viewpoint to the spread of English language and education by viewing it from the lens of gender. It comprises 12 essays and a detailed introduction. Most of the essays are focussed on the colonial and pre-independence era.

The author views language in relation to gender by associating the English language and education with masculinity, since men were the first to access modernity through the advent of colonialism. At the same time, regional languages and their use is seen in relation with women or femininity. This may also be understood as a symbol of the power which English language wields over regional languages, similar to the sociopolitical control exercised over women and their writings. Thus, linguistic inequalities are seen as being intertwined with gender inequalities.

The book takes a well-rounded approach towards the multiplicities of perspectives with regard to modernity and English education during the period. It presents multiple viewpoints—the educational access granted to women as part of the nationalist reform project undertaken majorly by men; modernity being used as a token to re-establish traditional gender roles and domesticating women; exposure to English language and education creating wider gaps between privileged and non-privileged women.

The book also brings forth the viewpoint that some nationalists viewed modernity, encompassed by the English language and education as a corrupting element and a colonial legacy, which was to be resisted especially with regard to women. However, the subversive attempts of women writers to use the exposure and liberation provided by English language and education for writing their own subjective discourse is also given ample space for discussion in the book.

This volume demonstrates that the impact of the English language and English education (it does not make a nuanced differentiation between the two) varies widely from woman to woman, depending on their background, thus adding the dimensions of caste, class, religion, gender and politics to language learning.

The introduction binds the essays into a common thread, and uses multiple references to the writings and lives of various women authors, including women writing in vernacular languages. It gives the reader an opportunity to expand the scope of their readings in regional literatures, both in terms of women's writing in English and alternative discourses in language.

Chapter 1 is titled "Language, Reform and Nationalism: Indian Women's Writing in the Nineteenth Century" by C. Vijayasree. It brings to light some of the Indian women writers of the period, whose lives and works were comparatively ignored by the popular discourse, and which came to fore through historical narratives. Through the description of their works and the influences on these, the essay elaborates on the alternate lens, rather lenses, through which the agendas of the nationalist movement with regard to women can be viewed. Vijayasree argues that exposure to English education and social reform were crucial factors in bringing out the subjectivity of these women.

Chapter 2 by Uma Alladi, "Women and 'Reform'", problematizes the notion of modernity and English education for women of the 19th and early 20th century. Alladi uses the works of three women writers from three different language backgrounds to bring out how English education was used as a tool by patriarchy to "reform" the women. The aim was to improve the skills of the domesticated women and "liberate" the so called "other" women.

The third essay by Sanjukta Dasgupta, "Colonized: The Bengali Woman Writer in British India", compares the condition of women writers in Bengal in the 19th century with those in British India in the early 20th century, to bring out the similarity in notions against women's education and writing. Women's writing, especially in English, was seen as a revolutionary and subversive act, and therefore criticized. The author also argues that women's education in India was seen as a colonial legacy by some nationalists.

The fourth chapter is by Somdatta Bhattacharya, and is titled "Rokeya's Dream: Feminist Interventions and Utopias". The author uses the life and works of Rokeya Sakhawat Hossain to bring out not only the problems such as choice of language for writing and patriarchal notions of nationalism which stood in the way of women's education and reform, but also the way in which women's writing paved the way for rebelling against both colonial domination and conservative nationalism.

Meera Kosambi's essay "Marathi Women Novelists and Colonial Modernity: Kashibai Kanitkar and Indirabai Sahasrabuddhe" forms Chapter 5 of the book. It draws on the life of these two women novelists to argue that women's education and reform began majorly as a male dominated nationalist project. However, some women writers were able to develop a feminist discourse through their writings by using that very exposure to education and English language, which was provided by the reformists as a subversion tool.

Chapter 6 is by Omprakash Manikrao Kamble and is titled "Mukta Salve: The Early Emergence of a Protest Voice in Mid-Nineteenth-Century Bombay Presidency, 1855". The chapter delves into Mukta Salve's essay "Mang Maharanchya Dukka Wishayi Nibandh", to draw attention towards the role of English language in the Dalit discourse at the time. It elaborates how access to English education and colonial modernity helped the Dalits question notions of purity and pollution, which formed the core of the varna system. Contemporary voices in Dalit empowerment such as that of Kancha Ilaiah asking for English education for the Dalits almost seem to echo this historical discourse.

Paromita Bose's essay "Writing Self: Writing for Others", combines several interesting discourses. Bose looks at Muthulakshmi Reddi's autobiography, and argues that English education was a crucial factor in her emergence as a reformer, one of the first women doctors in India, and a beneficiary as well as supporter of the Anti-Nautch Movement. The essay thus views language discourse along with social reform movement, professional education, women's upliftment and the "reform" of the "other" women as Alladi describes in the second chapter.

Chapter 8, by S. Jinju "Reconfiguring Boundaries: Education, Modernity, and Conjugality in Lalithambika Antharjanam's Agnisakshi and Zeenuth Futehally's Zohra" simply sums the lives of the female protagonists of these two novels based in the pre-independence era. The two characters are used to represent the struggle between the binaries of an emancipated aspirational educated self and the traditional roles that women had been confined to under the patriarchal system, especially in the confines of marital homes.

Chapter 9 by H. Nikhila is interestingly titled "Securing Pass Marks: Education for Women in the Early Modern Kannada Novel", and is very well structured. It draws on four Kannada novels based in the context of the 20th century to bring out that women's education was aimed at bringing about superficial modernity to produce modernized domesticated women. These women barely secured pass marks in examinations, rather than becoming free thinking individuals who benefitted from the education that they were exposed to.

Chapter 10, Sowmya Dechamma's essay "Women and English Education in Coorg/Kodagu: A Discussion of Alternate Modernities during 1834-1882", studies the effects of English language and education on the Coorgs/Kodavas as a community, especially with regard to the girl child and women. Dechamma coherently exemplifies the argument that exposure to English education affected different people differently, almost reminiscent of the Dalit empowerment through English as elaborated in Chapter 6 by Kamble. Both the essays argue that for marginalized populations, modernity through English education brought opportunities of empowerment. Dechamma's essay also discusses how the larger discourse of modernity as viewed by the nationalist movement was not the only discourse, and how various contexts experienced modernity very differently.

Chapter 11 by Yogitha Shetty is titled "Nation, Ideal Womanhood and English Education: Revisiting the First Tulu novel Sati Kamale". In the essay, Shetty argues that the novel in question is a nationalist project that portrays English education as being representative of colonial modernity that should be resisted. The essay also problematizes the novel's understanding by bringing forth the varied opinions that existed within the Tulu community with regard to English education.

The last Chapter by Jasbir Jain called "Between Langue and Parole: The Forked Road to Development" steps out of the historical period on which the other essays are based, and looks at various language issues in the contemporary context. The English language, with its relation to education, pedagogical problems, as well as employment issues is discussed with the help of various references and examples.

To sum up, a line from the Introduction of the book says, "the essays in this volume

rightly take the identities and specificities into consideration instead of essentializing the debates around English". The volume takes a subjective approach. It does not have English teaching strategies as an objective. Instead, it is more suited for sociological, gender, or historical analysis of the use of English language in the era that it focuses on. However, it can act as an interesting background read for a deeper understanding of the present issues relating to education and language.

Further, since political, social and economic undercurrents form the basis of our everyday interactions, especially in a language classroom, the volume helps to expand understanding of these with regard to language. It is relevant for broadening one's horizons in alternative understanding of the relations between language and gender, multiple views of modernity and education, and history of English language in the Indian context.

The Double Perspective: Language, Literacy, and Social Relations

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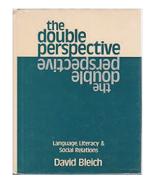
The Double Perspective: Language, Literacy, and Social Relations

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Bleich, David. (1988).

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Reviewed by: Veena Kapur



Erudite and polemical, The Double Perspective by David Bleich is a book that explores the relationship between language and literacy in the context of culture and social relations that help shape it. To this complicated mix, Bleich adds the element of teaching and pedagogy. The understanding of the meaning of the word "language" and the content of language achieves a depth that is nuanced manifold because of the author's incisive insight into the modalities of language learning. Bleich builds upon his previous work in reader response criticism as he challenges the prevalent assumption that language is an

individual transaction completely bereft of any social linkages. Interestingly, Bleich links his earlier understanding of concepts such as intersubjectivity, mental stereoscopy and the role of affective logic in reading, to the heady mix of emergent arguments about pedagogy, gender roles and literacy.

The author draws upon a voluminous body of research in areas such as feminist schools of thought, linguistics, anthropology, etc., to question and discuss the basic premises that form the foundation of pedagogy of education in the West. Bleich revisits these theorists in order to question the basic premise of knowledge in society. The modern-day university classroom is seen with fresh eyes, when Bleich tries to understand the ramifications of teaching the social and collective nature of language. The book adds a greater depth to the area of the phenomenology of reading, as the author moves through a series of interrelated essays by feminist epistemologists, and essays on social conceptions of language and knowledge by luminaries such as G. H. Mead, L.S. Vygotsky, Ludwig Fleck and Mikhail Bakhtin, amongst others.

The traditional views that Bleich critiques pertain to those that we accept unquestioningly, for achievement of knowledge is purely an individual matter, something best done entirely on one's own; the university classroom is nonsocialized (p. 17); and most damagingly. the classroom environment assumes an adversarial stance. Bleich's greatest concern is around the implication of these views and how they have impacted classroom discourse. Most importantly, he deplores the fact that modern day societal discourse has not been encouraged nor developed in the academic classroom, thus bestowing upon the university classroom the dubious honour of privileged ideology. The author insists that alternative styles such as those found in most feminine discourses are non-oppositional (p. 57), flexible (p. 57), and incorporate a greater fluency of inference (p. 147). These values, he feels, add to our perspective on language, and consequently to its teaching.

The book comprises of ten chapters, excluding the introduction and conclusion. The introduction sets the mood for an erudite discourse by putting forward an analysis of literary gems such as Death of a Salesman not as literature, but as a slice of discourse put in a frame (p. xiii). Literary reading, reasserts Bleich, "spontaneously elicits in us a new second perspective on language and human relationships" (p. xiii). By virtue of his/her individuality, each person brings into the classroom certain privileges. Language does not simply appear in each of us, contends Bleich, but its acquisition is closely bound to the individual's sociocultural context (p. x).

Bleich begins his treatise with summaries of the theoretical positions of Derrida and Husserl. The opening chapter goes on to elaborate on the concept of intersubjectivity. There is an extensive emphasis on the feminist theories of knowledge, such as that of Susan Handelman and Sandra Harding, the theories of these luminaries are the fulcrum needed to build a theoretical framework on which to peg arguments on varied discourse styles and for creating a much-needed paradigm shift. Further, Bleich also elaborates upon the historical import of the gradual separation of literacy from orality in the West. The priority placed upon literacy of the individual relegates oral habits to a secondary position. Quite incongruously, this impoverishes the teaching of literacy in the formal school classroom (p. 84).

Despite the strong emphasis on the theory of language, the overall focus of this book still remains on pedagogy. This is obvious from the genre and the kind of topics selected for analysis-collaborative learning, relationship between the teacher and the taught, course design etc. Chapter 4 is insightful and expansive in the manner in which it explores the idea of "cognitive stereoscopy"; it presents an analysis of how Hellen Keller acquired language through her relationship with Anne Sullivan (p. 87). Bleich describes by stating "any language/literate act depends on double or multiple perspectives held by the members of the speaking community, and that to analyse any language/literate act, the stipulation of double or multiple perspectives will be part of the explanatory procedure" (p. 88). Many of the intricate processes of language learning and assimilation are explained with examples from practical life, and with references from other psychologists and theorists. Social conceptions of language and knowledge located in the works of Vygotsky, Mead, Fleck and Bakhtain are juxtaposed with the process of language development to showcase the social character of the classroom and academic communities.

"Gender Interests in Language and Literature", is a chapter devoted to viewing language use through a sociological and psychological lens as Bleich draws upon Leo Stone's and Ralph Cohens' arguments. Using examples from literature, his arguments and attitude build a fresh viewpoint with regard to sociological processes, and language and literacy. The author explains how the outlook of the two genders together form a unified human perspective or a double perspective. The author's main contention throughout the book is to show that literacy and language use are inherently social rather than exclusively individual.

The classroom, which Bleich terms as a "ubiquitous institution with a long history", moves centre stage in Chapter 6. Here he discusses how it can be reconceived, reused, reenlisted, and/or recast to work with this greatly enlarged sense of English (p. 158). The classroom does not merely convey knowledge, but its primary activity is created as a result of testing and grading. Bleich's main argument is that language and literacy cannot be reconceived without making the corresponding change in the social relations within the classroom. He posits that it should be visualized as a collective rather than as a collection, with the focus shifting from the teacher to the collaborative action of the students. A simple shift can, for example, take the form of a change in the seating layout of the learners, from audience seating to circular seating, thereby allowing the

students to look at each other as well as at the teacher. The author stresses that relationships that form as a result of group work need to be nurtured and developed into contributing units. Moreover, teachers too need to work collaboratively (faculty writing workshops are excellent examples of this), to promote collaborative work in the classroom (p. 180). The focus should be on the social nature of the classroom, which has great potential and needs to be tapped and developed.

This is further elaborated upon in Chapter 10, "Collaboration among Students". The detailed narratives in this chapter help to highlight the problems related to group work—lack of knowledge of how groups work, how to maintain discipline within the group and how to textualize group interaction. What emerges from the discussions is the fact that authority and compliance share the stage with other matters such as confidence, success and gender, but most importantly, language use. The author's arguments bring out how language use is related to every social instinct in human beings, and disregarding this fact would unfortunately transform the very nature of language itself.

The analysis of classroom processes by the author are not mere whimsical musings of a philosopher or a writer with philosophical leanings, but are carefully thought arguments, with supporting evidence from various disciplines. Bleich stresses that redistributing classroom authority proactively improves individual discipline and cultivates the habits of collective and collaborative work. He further elaborates that how individuals perceive themselves will change as a consequence of the sustained attention they give to their language use. The connections between the abstract idea of the double perspective (mentioned earlier) and the concrete facts of human growth and development in a university

classroom are examined with care, while laying great emphasis on refashioning educational experience into a fully evolved social experience. The author believes that mutuality and reciprocity are at the heart of enriching classroom experiences and presents this argument through cursory examples throughout the book. He elaborates on this towards the end, in the chapter "Mutuality Between Student and Teacher". By incorporating personal narratives (as he has done consistently throughout the book), Bleich is able to lend greater credibility to his argument and the importance of student teacher mutuality in the classroom.

In writing this book, Bleich has written a classic on language that is deeply rooted in pedagogy, with a verve and passion rarely found in scholarly writing. The book is the first of its kind in academic writing, especially in the sphere of language development and learning. Multiple perspectives comprising of the ethnic, the economic, the geographic and the religious form the basis of understanding the use of language and the processes that shape these uses and implications they have on language teaching and learning. This is what adds philosophical dimensions to the book, making it a mandatory read for students of language and social psychology.

Teaching Children's Literature: It's Critical!

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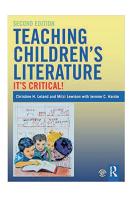
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Reviewed by: Prachi Kalra

This book brings together children's literature and its use in critical literacy for elementary and middle school children. As such, it is relevant for all those who value and use children's literature—children, teachers, teacher educators and even parents. Each chapter is developed around theoretical "principles" of critical literacy, besides offering suggestions for working with diverse learners, using technology for multi-modal reading and ideas for assessment.

The book is particularly relevant in our country because it brings into focus how children's literature can enable children to become critical thinkers. Lately, there has been some public discourse on the value of children's literature in the school curriculum, and the need for classrooms to go beyond textbooks to support children in becoming readers and writers. However, there is less clarity on how a print-rich classroom can effectively use children's literature in a "socially conscious fashion". For both teachers and teacher educators, this book takes the discourse beyond merely making children's literature available in the library or classroom. It emphasizes that we need to focus more on dynamic print-rich classrooms which promote enjoyment of books across the curriculum, and literacy practices which enable young readers to dig deeper for meaning.



The introductory chapter focusses on the conceptual framework of the book. The authors distinguish between "real" reading and reading instruction. The former uses authentic literature with the aim of promoting enjoyment and making a personal connection with books. Reading instruction, on the other hand, pays more attention to teaching skills, finding the correct answers and remembering the information contained in the book. The chapter also presents an instructional model of critical literacy which includes personal reading, critical social practices (such as disrupting the commonplace and taking on multiple perspectives), and taking a critical stance to dig deep and become reflexive readers. The authors are careful to point out that the most important mantra for creating passionate readers is enjoyment, for which it is important to enable children to select from a range of books.

The second, third and fourth chapters focus on literacy practices that promote enjoyment of reading. Chapter 2 highlights the importance of reading aloud at home and in the classroom. The authors are careful to point out that this is not the read aloud which often happens in the classroom when children take turns to read out sections of a textbook and the teacher checks them for fluency and pronunciation. In authentic reading, when parents, teachers and older siblings or peers read aloud from a book, it enables children to develop a "readerly identity" as individuals interested in books and capable of taking multiple perspectives and responding to books in many ways. In India, as reading aloud finds greater legitimacy in the classroom, this chapter will enable teachers to select the right books to prepare for reading aloud. The authors emphasize that the most important value added by reading aloud is the element of "fun". What kills the fun of reading is the constant emphasis by the school on skills-based work-sheets, testing and teaching to the test. The chapter also includes suggestions on

follow-up activities, working with linguistically diverse children and assessing children's progress.

The next chapter underlines the importance of teaching how to read using children's literature. Children who learn to read through literature become savvy readers, who know what they enjoy reading. The authors contrast phonicsbased reading instruction with emergent literacy practices to show that children who have a few books at home benefit a lot from literature-based reading instruction. A critical transactional model of reading includes the four cueing systems-semantics, syntax, graphophonemics and pragmatics or language as social practice. Besides this, a critical perspective encourages children to examine issues of power in books. This chapter also empasizes the importance of making reading-writing connections, extending the print to include environmental print, using the Language Experience Approach and creating translingual books for diverse language learners. The authors discuss the reasons why basal or leveled readers, that are based on a formula, do more harm than qood.

What kind of books lead to critical literacy in children? In chapter 4 the authors answer this question by underscoring the importance of "books about social issues, multicultural experiences and international stories and global events" in the reading corner. Such books invite conversations about fairness and justice and question the positioning of "otherness". They are springboards for digging deeper into social issues and perspectives. In this context, the authors also discuss the relevant issue of "authentic" multicultural literature. However, what is missing is the equally valid issue of the literary qualities of multicultural texts; besides being authentic, they must also tell a good yarn to engage the reader. The chapter does not discuss this. There is a list of sources

of multicultural literature and suggestions for graphic novels and books on Afghanistan, to give an example. The authors recommend the use of bilingual books for linguistically diverse children.

Chapter 5 discusses how older children (5th Grade onwards) can be invited to linger in the text, to dig deeper for meaning as they understand different perspectives. The authors are careful to point out that besides socially relevant texts, any kind of children's literature including fairytales can offer opportunities for critical language study. The chapter offers many suggestions on how readers can be encouraged to unpack texts, look for counter-narratives, challenge stereotypes and read against the frame of the text. Most importantly, this chapter describes how literature discussions can become more inclusive. with the teacher sharing interpretative authority with students.

The next chapter elaborates on conducting discussions around literature. Literature circles can be made more inclusive through partner reading, openended questions and by assigning different roles to children. The most crucial aspect of Chapter 6 is its description of text sets—a set of books and other resources to explore a specific topic. Children become "text analysts" by challenging the neutrality of the text sets and analyzing how they provide different perspectives on the same topic. Since literature studies can have several critical literacy goals, the authors discuss ten goals and classroom practices which can enable teachers to achieve these goals.

In the 7th Chapter, the authors extend literature circles across the curriculum to ensure that students are not merely passively receiving information. As students conduct focussed studies into various topics, they devise creative ways to take action on the in-depth inquiries that they have conducted. Author and illustrator studies and genre studies enable students to become "detectives" and dig deeper for meaning making.

Chapter 8 elaborates on the process of "transmediation" to connect language with other forms of knowing, such as art and music. This chapter is particularly relevant in recent times when multimodality has extended the borders of literacy. There are several vignettes, which explain how digital, spatial, visual, musical and dramatic modes of responding to literature enable children to have their voices heard. Process drama, for instance, can really invite students to step into the text and enact alternate interpretations.

Chapter 9 is particularly relevant in the Indian context, where the teaching of stories and poems serves the instrumental purpose of passing down morality or teaching discrete skills of language. The authors point out that complex books on social issues lead to amazing conversations in class. Teacher self-censorship (sometimes because the book belongs to a popular genre such as the supernatural, or if it is on a "difficult" subject such as caste) of books can under-estimate and silence students into passivity. It is important to have lots of books that include popular genres and series, and even dull books. First, it is important for the teacher to know how to use these books. Second, teachers should not act as "book police", but should negotiate with the children to get them to read great books. The final chapter describes 66 literature response strategies in detail, with the materials and processes involved in implementing them. For instance, the section on big books describes their value in the emergent literacy classroom and suggests how teachers and students can create them from their favourite books. Each chapter in the book ends with suggestions on further reading for teachers, a chapterwise bibliography and a list of children's literature cited.

This book is highly recommended for teachers and teacher educators who value the use of children's literature in the language classroom, and would like their students to think critically and question the everyday world around them.

Language and LanguageTeaching (LLT) Objectives

Published twice a year in January and July, Language and Language Teaching (LLT) reaches out to language teachers, researchers and teacher educators on issues and practices relevant to language teaching. The primary focus of the publication is language pedagogy in elementary schools. LLT proposes to establish a dialogue between theory and practice so that practice contributes to theory as much as theory informs practice. The purpose is to make new ideas and insights from research on language and its pedagogy accessible to practitioners while at the same time inform theorists about the constraints of implementation of new ideas.

Guidelines for Submission of Manuscripts

- MS word version of the manuscripts (British spellings) should be submitted to the Editors of LLT via email at the address(es) given below: jourllt@gmail.com. If need be, you may also send them by post to: Vidya Bhawan Society, Fatehpura, Udaipur 313004, Rajasthan, India.
- 2. Language and Language Teaching (LLT) welcomes original papers/articles that have not been published elsewhere and have not been submitted elsewhere for publication at the time of being sent to LLT. Copies of letters granting permission to reproduce illustrations, tables, or lengthy quoted passages should be included with the manuscript.
- 3. Word limit including the reference, abstract and a short bio note is as follows: Articles: 2500; Interview: 3000; Landmark: 3000; Book Reviews: 1500; Classroom Activities: 750; Reports: 1000.
- The first page should contain the article title, author(s) and their affiliation(s). It should also contain the abstract and keywords.
- For correspondence, contributor should provide his/her name, phone number, complete mailing address and email address.
- The style for writing numerical expressions should be consistent throughout the manuscript.
- 7. Notes should appear at the end of the text and before the references. Footnotes are

not permitted. Each endnote used in the article should contain more than a mere reference.

- 8. Single quotes should be used throughout the article. Double quotes should be used only within single quotes.
- All the references must be cited in text or endnotes, and follow the APA style of referencing in the text. For example: (Chomsky, 2010: p. 27) or (Labov, 2010, p. 56) or (Halliday, 2010, pp. 56-57)
- 10. A detailed list of references in alphabetical order must be provided at the end of the article following the endnotes. All details should be provided like: the author's name, name of the book/ name of the journal with issue number, publisher, place of publication, year and page range/ number (in the case of chapter from an edited book, journal, magazine, weekly, periodicals, newspapers).
- Page numbers for all direct quotations should be provided. Direct quotations of 45 words or more should be indented.
- 12. Tables and figures should be clear, readable and comprehensible.
- 13. Book reviews must contain details like name of the author/editor and book reviewed, place of publication and publisher, year of publication, scanned copy of the cover page, number of pages and price.
- 14. LLT is a refereed journal. All manuscripts are subject to the usual process of anonymous review.

Classroom Activities

Activities to Familiarize Students with Maps

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ACTIVITY: Familiarizing Students with Maps

Task 1: Treasure Hunt

Objective: To build map-reading skills.

Level: Classes 4 and 5

Material: Map of each floor of the school, a bunch of keys (or any attractive object)

Time: 15 Minutes

Type of Participation: Groups of four

Procedure

- Assemble the class to discuss the meaning of the game "Treasure Hunt". Explain that the treasure is an object that has been hidden (a bunch of keys, in this case).
- Divide the class into groups of four. Give one map to each group.
- Discuss the symbols used in the map (for stairs, gate, etc.) and also encourage them to tell the class how

they would reach from one point on the map to another.

- The students have to look for the bunch of keys, whose location will be marked in the map.
- The team that finds all the keys first will be declared the winner.
- The facilitator has to observe every team during the activity. The students may ask the facilitator in case they have a doubt with regard to the directions or symbols used in the map.

Feedback

- Ask the learners to discuss their experiences of finding the treasure.
- Ask the students to articulate what they found difficult in the task and what they were able to do easily.
- The discussion should include how the students went about using the map to locate the keys and what they think about the utility of maps.

Task 2: Reading Maps

Objective: To read Maps.

Materials: pictures of Golconda Fort (of the required place), NCERT EVS Class 5 textbook

Time: 20 minutes

Type of participation: Pair work

Procedure

- Initiate a class discussion about a famous place, either one that is liked by the students, or one that has some peculiar characteristics. For instance, Golconda Fort is an example of a historic place with a specific history.
- Ask the students about the historical places that they have seen or heard about.
- The characteristics of the historical place (Golconda Fort in this case) should be discussed in the class with the help of pictures.
- The discussion is followed by showing the students the map of the region around Golconda Fort.
 Source: NCERT, Looking around, Class 5, "Walls Tell Stories")
- Ask the students questions based on the map, focusing on the symbols, the directions and comprehension of the map. Example: How many doors will you pass if you are going from the baoli to the sarovar?

Feedback

- Encourage the students to discuss their experience of map reading with each other.
- They can verify their findings themselves and also should be encouraged to give reasons for them.
- A discussion can then ensue around other interesting things on the map that students can spot for themselves.

Task 3: Drawing Maps

Objective: To create maps. Level: Classes 4 and 5 Materials: Blank sheets, pencils Time: 30-40 minutes Type of participation: Individual or pairs

Procedure

- Ask the students to share their experiences of map-reading.
- Encourage them to recall the cues they followed to identify places on the map.
- Encourage the students to draw a map each.
- The map can be of a floor in the school, or of the route to a nearby chemist shop from the school building, or the route to a student's house. Any place that the student is familiar with will work for this activity.
- The facilitator may participate in the activity while performing the role of a supervisor.
- Ask the students to recall the turns and landmarks, such as a post office, that they encounter on the way.
- Get the students to share their maps with the class.

Feedback

- When the students share their maps, make sure that you highlight the efforts they have put in marking the landmarks on the map.
- Observe whether students have understood the concept of spatial representation and whether this reflects in their work.
- Show appreciation for the students' efforts.

Report

Reflections on OELP (Organisation for Early Literacy Promotion)

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Founded in January 2008, the Organisation for Early Literacy Promotion (OELP) vision statement reads as follows:

"To enhance the quality and responsiveness of the educational experience for all children regardless of their home backgrounds, so that they can learn with fullness and actualize their full potentials as active and empowered members of the contemporary world."

A recent two-day visit to OELP in Rajasthan with my 3rd year students of Elementary Education Programme set me thinking about the issues related to emergent literacy. Why is it that the majority of Class 4 or Class 5 children in MCD schools in Delhi are unable to read and write, while in the remote villages of Rajasthan, with OELP's intervention, children of Classes 1 and 2 are able to do so?

I will begin with some of my observations within and outside the OLEP classrooms:

1. Attitude of OELP teachers: Not highly educated themselves, these are a bunch of happy teachers, who have a positive attitude that all children can learn to read and write if they get sufficient opportunities and exposure. These teachers also have tremendous selfbelief and the drive to make a difference.

2. Use of mother tongue: Teachers largely use the mother tongue and its variations to talk to children and gradually integrate Hindi in their communication with the children. Classrooms have a nonthreatening environment and are pleasantly engaging. Teachers use flash cards with the names of the children that they shuffle each time to get a child to come forward to lead an activity, play a game, read a poem or a story, respond to a question or get the child to ask questions from his peers.

3. Print-rich classrooms: In order to promote literacy development, the classroom have marked corners and spaces such as "kavita ka kona"; "kahaniyo ka kona"; "baccho ke naam ka kona"; "calender ka kona"; "ganit ka kona", etc. These are used for displaying various printed materials, posters, charts and children's writings. "Zimmedari ka kona" makes children responsible for various tasks, such as distributing notebooks, papers, files, pencils, etc., on a rotational basis.

Apart from these designated corners, each class room has 6 sets/groups of letter charts that have been "scientifically designed" to help children recognize letters and form meaningful words. We were told that these letter charts, called "varna samooha groupings" had evolved through an organic process, over one year of sustained engagement in the early grade classes. The OELP team felt that barakhadi had too much information for the children to process, and was inevitably mechanical in nature. Therefore, varna samoohas, with a limited set of alpha syllables, vowels and abbreviated vowel markers or matras were created by breaking down the barakhadi through an active process of dialogue with the teachers, using intuitive knowledge and experience with young learners. OELP claims that an important consideration in designing these samoohas has been the ease with which the sub-lexical units combine to generate words that are from the children's own spoken language repertoire. The OELP teachers told us that they spend almost 3 months on the first varna samooha, after which the children rapidly begin reading the other charts and materials. For example, children engage in word play by looking for sound-symbol combinations that generate the names of colours or rhyming words.

4. Reading stories: Teachers read out stories to children everyday. While some of the stories relate to a particular theme that OELP changes every week, about 10-12 story books find a corner in their classrooms. These books are changed every week, and children have the freedom to select any book that they want to read themselves during designated hours. Typically, each child gets to read about 30-40 story books in the classroom every month. Further, visits to libraries are organized thrice a week, where many more books are available. This gives the children more choice to read according to their interest.

5. Opportunities for drawing, free writing and responding to questions/stories: The children are at different literacy levels, and the teachers have grouped them without them being aware of it. Group names (for example, sooraj, chand, sitare) are often called out so that children sit in their respective groups for an activity suited to their level. The use of mother tongue names for animals/persons/things is accepted in their writings. "Anubhav lekhan" is done everyday where children freely express their thoughts and experiences.

6. Profile folders: A folder with the worksheets of each child's monthly progress charting the child's process of reading and writing is always available for reference. Assessments are done thrice a year to help teachers understand the areas where each child requires help, thus using assessment records for learning. While some records assess recognition of letters, or decoding and joining letters to form words, detailed assessments are also done to record, for example, whether a child is able to make meaning in a written text, or whether s/he is paying attention to the cover page of a story, reading the title, the author or illustrator's name, or the publisher's name.

7. Libraries: These function more like community libraries for children and their family members. They are managed by the children with the help of their teacher. These spaces are not just for reading story books, but also for doing puppet shows based on the stories that children have read, role plays, playing antakshani based on story names, reading to each other or writing their own stories, all at a pace that children decide on their own. One of the libraries that we visited has a stock of 17,000 books, mostly fiction for various age groups. OELP also organizes "kahani melas" with the involvement of the local communities.

While I am not personally convinced about OELP's focus on the knowledge of phonemes and phonemic awareness for laying the foundation for learning, it appears that using an eclectic approach is indeed helping children to read and write. It is difficult for me to understand how the varna samooha groupings are different from barakhadi. The groupings of the varna samooha rely on the same processes of breaking down language, identifying and memorizing meaningless letters, decoding the sound-symbol connections, and developing mechanical skills, as the barakhadi. Therefore, I strongly feel that what is really working for the children and their reading is not the varna samoohas, but the focus on self-selected reading for pleasure.

With access to well-stocked libraries and story books in the classrooms from the very beginning, the children are discovering their reading interests and developing reading habits. The power of stories is evident when children run to pick up story books in a state of heightened enthusiasm, and take their time to select the storybooks, especially in the library. Some of the Class 2 children mentioned that they had read almost 40-60 story books. Illustrations fascinate them and sometimes also help them to predict what they are reading as they can make the connections between the text and the illustrations. They also mentioned that they go back home and read or narrate the stories that they find interesting to their family members. Their mothers, who are too shy to come out of their homes, often request their children to issue books for them. A fascinating spiraling effect seems to be taking place where the children are becoming the promoters of literacy development in adults as well.

Krashen has emphasized the significance of comprehensible and compelling input in second language acquisition. According to his comprehension hypothesis, we acquire language largely through a subconscious process: when we understand what we read, when we get comprehensible input. In my view, story books are the most potent form of reading. By encouraging the children to listen to and read story books, OELP is helping them not only to discover their own comprehensible input, but is also teaching them how to select compelling or interesting input. This self-selection of story books is generating and creating a "sustained reading culture" that will be instrumental in children leading literate lives, hopefully for life!

To understand more about Krashen's Second Language Acquisition Theory, read the previous journal of LLT: Volume 8 Number 1 Issue 15, January 2019.



INSIDE

Articles Interview Landmark Book Reviews Classroom Activities Report





'There are many aspects of human emotions and knowledge which cannot find expression in words and must therefore get spaces in 'lines and colours, sounds and movements'. Tagore

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