Teacher-Students Relationship and Its Potential Impact On Mathematics Learning

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Abstract

This article portrays lived experiences, and is an exploration of pedagogical practices as learners, as teachers, as teacher educators and educational researcher focusing on the relationship between teachers and students shifting from traditional to transformative approach in teaching and learning. Based on lived experiences as students of mathematics from school level to university, and as teachers of mathematics in different institutions in different time, the aim of this article is to examine and explore deep settled behavioral practices and seek to change towards transformative/constructive approach of learning and teaching in terms of teacher-student relationship to maintain quality of instruction for future generation in Nepal. Subscribing interpretive, critical, and postmodern research paradigms to embrace multi- paradigmatic research design (Taylor, Taylor & Luitel, 2012), we used auto-ethnography as a fusion research methodology in this study. Further, the auto-ethnographic inquiry also helped us to examine the pedagogical, cultural and contextual learning from different perspectives as students, teachers, teacher educators and educational researchers thereby offering space for interpretation, transformation and envisionary. We landed with the ideas that students' active participation in learning, social and cultural enactment and transformative pedagogy promote our practice to be more meaningful, and learner centered which, in turn, develops a cordial relationship. Our vision to develop the cordial relationship between teacher-students is focused a bit differently in this article.

Keywords: lived experiences, transformative learning, auto-ethnography, meaningful learning

Introduction

This article is one of the sections of first author's master dissertation under supervision of second and third authors in mathematics education at Kathmandu University School of Education. It portrays the lived experience and is an exploration of pedagogical practices of the first author as a learner, teacher, teacher educator and educational researcher focusing on the relationship between teachers and students shifting from traditional to transformative approach in teaching and learning. In this article, we have included introduction, supporting literature(s), theoretical referent(s), method, discussions, conclusions and implications.

As a student, and a teacher of mathematics, we faced different problems in the field

of learning and teaching in general and in mathematics education in a particular (Pant, 2017). As a student, it's hard to understand the mathematical concept in simple and easy ways but, on the other hand, as a novice teacher of mathematics of high school or university to facilitate students, it is hard to show and demonstrate new concept as well as old concept in the simplest form because of different forms of relationships to teachers and students. As we heard from our seniors, without vandalizing old one, a new one will not be created, so we are here in this world to kick the old out and develop an innovative approaches to understanding the feeling of the learners and strengthening their understanding accordingly. For that, we should try to change our teaching and learning process according to the need of the nation thereby develop easy ways to understand and to enlarge better teacher and students' relationship in mathematics classroom in the teaching and learning process for quality education for a future generation.

Before joining the contemporary approach of twenty-first generation university, we realized that we did not fully ensure justice to the students. Even more, we were not satisfied with our own approaches of teaching as well as learning. Further, as we have realized that it has only increased the level of the gap between teacher and students with different forms of relationship. But now, our styles of teaching and learning have been slowly changing to enlarge better relationship in the mathematics classroom. So, our hope and ability to show our performance is increasing and is about to satisfy ourselves with our own work.

Further, as researchers, we knew from our experience, many mathematics teachers were frightful persons, he/she always frightened students in various ways in his/her classes. S/he entered the class with a stick, probably to beat. That time, we have guessed s/he was not a teacher but was like an animal in our school level. We thought s/he came to class just to beat. In those days as a learner, we did not understand his/her languages of teaching because of his/her behaviors. In this situation, many students just wanted to escape away from him/her; therefore many students missed some classes just to escape from mathematics teacher(s).

From the above section, all the critical and reflective thoughts towards mathematics are differing in the time frame and context with various relationships between teachers and students (Dahal, 2013) such as when the students secure good marks, they became happy at that time, and their reflective and critical thoughts were positive even though for mathematics teacher and if they secured below average marks in the examination that time their thoughts were opposite. These all situations depict the pedagogy of mathematics, reflective and critical thoughts of an average student towards mathematics which may be different for each individual in the present context of Nepal.

In addition, mathematics is a subject which was considered as a difficult subject in the context of Nepal (Luitel & Pant, 2019); this could be the same situation in other countries as well. The problems could be the same in mathematics for creating the cordial relationship between teacher and students while teaching or learning to develop rapport between teacher and students (Dahal, 2013). As students feel mathematics difficult and usually, they hold misconceptions towards the subject teacher as a part of rapport which create the gap between teachers and students in mathematics. In our view, it is easy to discuss and hard to define which part is creating a gap between teacher and students in mathematics learning. This ides were articulated in this research article differently with possible insights.

Supporting Literatures

Teacher-student relationships. In general, relationships whether positive or negative in nature but have profound effects on quality of life, in this regards, we support Akiyama (2015) who state that well-being is directly tied to personal relationships. With this basic understanding of the apparent necessity and importance of relationships in our mind, this section, focuses more specifically on the importance as well as the impact of student-teacher relationships on mathematics learning. The strategies for effective teaching and learning are many, may be a long and varied list for this. The list may include, but not be limited to, a teacher's knowledge of the subject, pedagogical competence, instructional effectiveness, and/or classroom management skills. In a similar way, Banner and Cannon (2017) describe the difficulty in defining exactly what it means to be an effective teacher, "We think we know great teaching when we encounter it, yet we find it impossible to say precisely what has gone into making it great" (p. 3). The situation is further convoluted for us when considering whether teaching is an art or a science. Finally, ample amount of research exist reflect that content and caring are not elite commodities; effective teachers highlight both (McEwan (2002).

Creating success in the classroom. Student-teacher relationships have shown to us to be an important factor in students' success in the classroom. Pianta (2010) attests that teacher-student relationships are influential on students' success in school, and Lee (2007) found that the trust developed between the student and the teacher can contribute to students' academic performance. However, Noddings (2008; 2009) shared that students make learning a higher priority and thus work harder for teachers whom they care about and perceive as also valuing their learning. Hence, numerous successful outcomes, as well as behaviors paralleling that the student-teacher relationship can influence students' future paths toward academic success and was positively linked with children's academic performance. Lastly, Miller (2000) found that student-teacher relationships play an important role in helping to reduce the chances of future bad outcomes, i.e. dropping out of school. With this in mind, it should be of no surprise for us that caring, supportive teachers are often found in schools of high achievement. Silins and Murray-Harvey (2015) reported students who indicated high feelings of adequacy in their interactions with their teachers in academically successful schools. In this ethos, Hughes (2016) found "teachers who identify and address individual student needs" in a high achieving, rural schools. Hence, outcomes from strong student-teacher relationships are not only limited to the realm of academics. Additionally, Pianta (2009) reported that the quality of teacher-child relationships is a stronger predictor of behavioral than academic outcomes. Moreover, student-teacher relationships influence students' relationships with peers in their classrooms relationships matter (and) may reduce the risk of negative behavioral outcomes.

The importance of the teacher-student relationship for us also has been studied with regard to specific populations and cultures. To start with, different societies put different degrees of significance on the student-teacher relationships. Hence, individuals from different cultural traditions value different elements of the student-relationship, and also act within the relationship differently based upon their perceived-level of satisfaction. Lastly, we found several studies looking specifically at mentor-mentee relationships in educational settings with high-risk youth as well as gifted youth. We found that positive relationships have similar

benefits for students. The benefits incorporated an enlargement in self-esteem and confidence, as well as upgrading in studying skills and in the ability to use classroom knowledge.

Theoretical Perspectives

We will re-examine the underpinning beliefs we hold towards teacher-students relationship in mathematics while teaching and learning, for making our theoretical standpoint clear. We used some theories as theoretical referents. With the help of some theories and literature we have tried to make narratives clear. Those theories are discussed in brief below:

Critical theory. Critical theory can emancipate people from different disciplinary boundaries and it is concerned with creating societies free from dehumanizing policies and practices that perpetuate social injustice, cultural exclusion, social inequity, racism, sexism, ageism, scientism and many other forms of repression (Taylor, 2009). It is a meaning making process through reflexive voice of practitioners. Being able to critically reflect on our own beliefs on relationship and practices engages us into the act of pedagogical thoughtfulness in the hopes that students, teachers and teacher educators will come to realize the importance of being reflective in one's own belief and practices. Therefore, in this inquiry, understanding the relationship of constructivist belief and classroom practices plays a vital role in encouraging the readers to think about the educational issues underpinning their pedagogical practices. According to Brookfield (2000, p. 33), "critical reflection focuses on adult educators as inquirers into their own, and others' practice." Hence, engaging in this process will allow us to critically examine and ask questions about the classroom beliefs and practices that we were exposed to as a learner, as well as beliefs and practices which we may have promoted in our classroom as a mathematics learner, mathematics teacher and a teacher educator. The notions of ideology critique and pragmatist constructivism are amongst the traditions emphasized in the process of critical reflection (Brookfield, 2000). The former allows us to challenge the dominant and hidden ideologies, beliefs and assumptions, such as the issues of language and traditional mathematics classroom practices, embedded in our culture as a learner and as a teacher. The latter emphasizes the role of the first author play as we construct and deconstruct our experiences and meanings (Brookfield, 2000).

Radical constructivism. Constructivism, though it began as a theory of learning, has been used as a framework of research to improve teaching practices, particularly those of science and math (von Glasersfield, 1995). This pedagogical framework has made an impact on education particularly on learning theories and teaching methods in science and mathematics (Treagust, Duit & Fraser, 1996). A constructivist view of learning emphasizes that students construct their own knowledge using their own prior knowledge and experiences (Gunstone, 1995). As a referent in doing this study, we shall embrace the four essential criteria to characterize our constructivist teaching practices to reduce social distance in teaching mathematics in classroom: Eliciting prior knowledge, creating cognitive dissonance, application of the knowledge with feedback and reflection on learning (Hubbard, 2012). Using these criteria, we believe, allows us to recognize whether or not our pedagogical practices are worthwhile. As interpretive researchers and writing as self-inquiry, the activities we will be involved in (forming research questions, making sense of our experiences, writing the research report) are framed. As we make sense of the beliefs we hold towards teaching and learning

classroom practices we call on our lived experiences and the continuous learning process we engaged in while doing this study. In doing so, we will constantly ask ourselves whether the knowledge we produce is useful and viable in relationship with teacher and students as we try to find the answers to questioning self. According to Taylor (1996), the quality of knowledge we may produce in embracing this theoretical referent depends on: (1) our ability to sustain and resolve our perplexity, (2) the quality of our communicative relationships with others while trying to understand their understanding; and (3) our ability to engage in critical self-reflective thinking about the quality of our knowledge construction process to reduce the social distance in class room teaching in mathematics.

Transformative learning. Transformation comes from understanding the system of profound knowledge (Daszko & Sheinberg, 2005). The transformed individual perceives new meaning to his/her life, to events, to numbers, to interactions between people as mentioned by Mezirow (1991) and as used by Nepali mathematics educator (Pant, 2019). Once the individual understands the system of profound knowledge, he/she will apply its principles in every kind of relationship with other people. Transformation is not for the supplementary person to do, but for every person to take personal answerability to help create new futures, to ask questions, to take risks, and to make a differentiation. According to Daszko and Sheinberg (2005), transformation occurs when people create a vision for transformation and a system to continually question and challenge beliefs, assumptions, patterns, habits and paradigms with an aim of frequently developing and applying organization theory, through the lens of the system of insightful knowledge. In our research, we use this learning theory to reduce the distance between teachers and students in Mathematics class.

Method

In this article, we used auto-ethnography as a research method (Ellis, Adams & Bochner, 2010). Perhaps, it seems to be one of the appropriate methods to study our practices through the lens of the narratives of the first author. This auto-ethnographic research is also a very much useful tool for improvement of personal and professional practice (Dahal, Luitel & Pant, 2019). In this regards, the notion of the dialectic becomes important only within a commitment to emancipation, one that seeks to liberate in subjective and objective terms. In an effort to relate the lived experiences as a learner of mathematics and a classroom teacher of mathematics, we believed that a narrative inquiry as a research approach was the appropriate method to be used. Stories and conversations have been the way of unfolding and finding meaning in lived experiences asserted that a narrative research design focuses on studying a single person, gathering data through a collection of stories, reporting individual experiences, and discussing the meaning of those experiences for the individual (Miller & Salkind, 2002). Using narrative inquiry in this article, it allowed us to reflect the pedagogical experiences and uncover the construction and reconstruction of first authors' personal and social stories in a more meaningful way.

Discussions

Based on the research question and constructed methodological map, this section discusses the spirit of the research. As a first author, I am going to explore some of possible

relationships with my mathematics coach/teacher/facilitator, how s/he facilitated and restrained me from mathematics learning as per my experiences. Thus, we think it is very important to explain the first authors' physical, cultural, family situations and school culture before explaining any factors which influence and restrained learning and relationship with his teacher. As first author, I have passed different stages of life studying mathematics in different cultural contexts, further as a first author; I was suffering from different problems. I would like to present lived experiences ranking from home to university taking into consideration how I was treated as a mathematics learner, teacher, teacher educator and educational researcher in different situations. Furthermore, first author recollected the nodal moments of learning experiences as a learner, teacher, teacher educator and educational researcher that inspired cordial relationships with teachers and students in the mathematics learning process in the classroom. Thus, we are going to explore the following narratives of first author as learner, teacher, teacher educator and educational researcher as follows:

My Journey as a mathematics learner. *It can be any day in 1993 A.D., I joined at the village school named Shree Kalidhunaga Primary School. It was located in Mirge VDC, ward number 7 in Dolakha district. In each classroom, we were nearly forty students and more than 30% students were from other community (Tamang, Sherpa) who were not much interactive in our community. However, I used to learn many things from their culture to promote better relationship.*

Most of my teachers in the primary school had completed their S.L.C level only. So I experienced the gap (my teachers were unable to deliver mathematics properly because of the emphasis of our curriculum on content?)

Now, I do remember how I practiced addition and subtraction of numbers during that time. And I also do remember different set up in different locations during different social events. A game is also very much important for every child to have a better relationship with teachers and students. From the game, a student can learn mathematical concept easily. I can remember that I learned multiplication table more with rubber game than from my school teaching and learning activities. Our teachers made us practice copy and paste like activities.

However, I never developed the clarity of concept of mathematical problems during my student life of learning mathematics which was full of anxieties. Rote memorization was the main measure of learning during my school day.

Transmission of knowledge from head to head: Is learning. *It could be any day of my schooling in grade X of the year 2004 AD. It was the fourth period of the day, we were practicing mensuration in compulsory mathematics. The day before, our sir had given us some formula about the cylinder. He entered our classroom after a while.*

Sir: (taking a book form a student of the first bench) Turn your book at page 40.Ram! What is the formula for finding the volume of a cylinder?

Ram: Sir, it is r^2h.

Sir: Sita! Now you tell me what is the formula of finding its total surface area and curved surface area of a cylinder?

Sila: Sir! I have not read formula well.

Sir: (Showing anger himself) If then when will you read formula? After the SLC exam? (Sir reaches her bench and gives a slap on her back)

Ramesh: Sir! What actually is this Why is its value always 22/7?

Sir: This is a notation and it is universally accepted that its value is 22/7. By the way, it's not your business to think about Pi. You are not asked to explain Pi in the examination so your work is to complete this exercise and to be familiar with important questions.

(Teacher asks some formulae to other friends and writes on the board "there will be 6 marks of the question in SLC from this exercise".)

Sir: Now look at number 5.

Here, curved surface area (C. S.A.)= 308cm²

Radius (r) = height (h)

Volume (V) =?

We know that,

C.S.A. of cylinder = 2

or, 308=2rh

So, r=7cm=h

We know that,

Volume of the cylinder = ²h

= 1078cm³ //

(Sir takes his seat. Everyone copies solution to the question line-by-line from the blackboard)

Sir: Finished? (Students nod their heads). Now, look at question number 4. (He does the problem thoroughly on the board and asks us to copy the solution).

Me: (After copying solution from the board I quickly checked the answer from the book it was not correct). Sir! The answer is incorrect. (Other many students also checked form answer key given in the book and told yes sir! This is incorrect).

Sir: Wait! I will check my solution. (He checks his solution thoroughly but he found no mistake in his solution). The answer or question may be wrong. So leave this number and you need to do from 1 to 15. Number 5, 8, 11 and 15 are very important from the examination point of view.

(We all marked the important numbers in our book. The bell goes.)

Learning in a new scenario. *It can be any day of Feb. 2011. I successfully completed all the rules to be a student of a renowned University of Nepal in 2011 Feb batch hoping to do the best. I found that there were many struggles to face for good achievement and I couldn't be perfect without getting the knowledge of the subject matter in new and alternative ways of learning since I was a non-B.Ed. student so I felt uneasy at the beginning but I hoped I would be familiar in subject matter soon by learning and doing activities. I really found that this renowned university is my best choice to upgrade my progress. I am trying to get good command by improving my skill in English language which is a mandatory language in this university.*

I have been a teacher of mathematics at the secondary level as well as a master level student on the other hand. I have realized that students who are entering lower and secondary school education have many problems with mathematics learning. One of the aspects I have experienced, for example, was that, the approaches to teaching and learning of mathematics have been changed significantly in the last few years. Challenges posed by declining interests of students in mathematics are multifaceted and indeed, are of the domain of pedagogical discussion. Researches in mathematics learning have shown that the creative teaching learning strategies are the sources of intrinsic motivation towards learning of mathematics. Many teachers feel inadequate in mathematics education and are unable to give children the skills that are needed to succeed in upper primary school and at secondary level. Yet mathematics is essential for success in scientific and technical education. Unless the foundations are secured, it will be extremely difficult to build mathematical and scientific bases at the secondary level.

As a result, they commonly express a fear or anxiety of mathematics. Teaching mathematics, therefore, remains problematic because it requires knowledgeable and competent teachers. Due to teachers' poor mathematical backgrounds, many abstract concepts and formulas are introduced without paying much attention to aspects such as logic, reasoning, and understanding. This causes many of the students to think that mathematics is very difficult to learn. Where, for example, students in Nepal are often passive throughout the mathematics lessons; 'chalk and talk' is the preferred teaching style; emphasis is always made on factual knowledge and questions which require only single word answers, and often answered in chorus. Consequently, learning for conceptual understanding is inhibited.

Somehow, I'm on the way to address the above issue, and challenge after becoming the student of the university. The learning should be contextual, related to the problems of real life. Learners should feel that I also have important role in the learning situation. One should not feel that they are being imposed by somebody else. In fact, leaning mathematics should be taken as a continuous process of life to construct new ideas from the interaction with the environment. Mathematics activities, opportunities, tools and environments are provided to encourage learners' self-analysis, regulation, reflection and awareness. Mathematics knowledge construction should be emphasized rather than reproduction. The Government should provide different levels of training and provide sufficient teaching materials and economical support, and moreover, curriculum and textbook should be more practicable. The teacher should avoid traditional teaching methods and acquire scientific or modern teaching learning approach. The classroom should be more collaborative.

Being in the School:"Am I Luti?". *It can be any day of July 2012; my field work for research was towards the end. I was familiar with relationship between teacher-students and its impact on Mathematics learning and nature of relationship they had because this was my third visit to the same school. By then, I was also familiar with the names of the students. On this July morning, when I was inside the class as a researcher; waiting for the mathematics teacher, I planned to engage myself, so I chatted with student. At the same time mathematics teacher came to the class. I got surprised! I found the behaviors of the teacher totally different which I had ever experienced. The students' names were all stereotypical names like Luti, Bahiro, Aathdo, even low strategies of name. I never had assumed that they were comfortable with these names. Later on I came to know that they always wanted their first names to be*

called while being addressed. Isn't that interesting?

On that particular day, I talked about their names. I started a conversation with one of the student in Tiffin break asking whether or not she felt comfortable calling her by stereotypical name. She told me she was never ok with her stereotypical name. Un/like any other person, she wanted her first name to be called.

"Hello, 'Luti' (addressed by her stereotypical name and I could easily see the frown on her forehead)…… SssSahara" I greeted and we started conversation….

"Hi" she replied, "First time I heard someone calling me by this name except my mathematics teacher."(Stream of happiness was clearly noticeable on her face. I asked myself: Did she get her identity after calling by her name?)

"I am Sahara Chalise but my mathematics teacher calls me Luti. I don't understand why he uses this. I like to be called Sahara", she said leaning on the wall.

"I do agree with you, there is much more to our names, isn't' there?"

She seemed confused at that moment. And said, "Might be."

"Why do you want to be called Sahara? Don't you think mathematics teacher know you better by your so-called name, Sahara? " I further wanted to get her perception relating to her name identity inside the class room.

"Yes, he mostly calls me Luti. But it doesn't make me feel happy. Like other classmate I like to be called by my standard name. I cannot go against those who call me Luti, no matter how successful I am. I believe this interaction will definitely give me my name."

I become more curious to know about the history of her name.

"Do you know why your mathematics teacher calls you Luti instead of Sahara?"

"I don't know. Perhaps it was my teachers who started calling me by this name at first in mathematics class. Then all started to call me Luti and so do other classmates."

"Are you blaming your mathematics teacher for your name?" I asked her.

She said, "It is not only my mathematics teacher but the whole school society is responsible for distorting my name. Even my other classmate names have not been modified. I think my mathematics teacher hates me. I'm also weak in solving mathematics problems and I feel such names reflect weakness. As I grew older, I came to know that my name was a stereotypical name. I felt if I had a name of my own as any other classmate, I should call myself "Sahara". I started loving this name as it gave me a kind of confidence and freedom.

Then I asked, "Sahara, could you please tell me how you would feel if someone addressed you by your both names respectively?

"I would feel happy if someone called me Sahara and not Luti".

She continued, "It gives me satisfaction. Standard name makes me feel good and gives me a sense of freedom and willingness to do." "Well then, I will call you Sahara and I believe this will give you pleasure." So I joined a chat with you to get my name "Sahara".

Journey as a novice mathematics teacher in a government school. *It could be in December 2009, I got a job of a secondary mathematics teacher in one of the government schools in Dolakha which was my first experience in teaching career. I felt very difficult to get*

adjusted with the students. In the very beginning of my classroom teaching, I was unable to understand my students' interests which craved bad relationship with my students. Nepali was the medium of instruction and I was from Nepali language background but the society of that area was Tamang, so they hardly responded to my question. My spoken Nepali was satisfactory in terms of teaching and the students understood my explanation easily. I felt that my students were frustrated with me. One day, one of the students from class ten said to me "Sir, we cannot understand your teaching." I perceived that word and that moment as a very much important incident in my life.

After that, I started thinking about myself and my teaching style. I was very much concerned about my language of teaching time and again. Before joining that school as a secondary level mathematics teacher, I never spoke confidently. However, I appeared to have improved gradually with my hard endeavor and regular practice after some days of teaching. Then my students gradually started enjoying my class and liking my teaching style and having a good relationship now and again. Sometimes, I would tell them to write reflection about mathematics, mathematics classroom, mathematics teacher and behavior of mathematics teacher to promote good relationship. From those reflections, I generated some critical points for the improvement of my teaching and learnt about my student's interests.

After getting their reflections, I made plans to address their problem and started teaching them through different teaching method which could reduce bad relationship so they could easily engaged in learning. During the initial stage, it was difficult to think about activity in each and every class. But after some days of teaching, I started feeling easier than my traditional teaching styles. Persistent and continuous reflections within the practice of teaching are effective for teacher researcher and they help develop teachers' professional development also as research is linked with writing papers and making my 'findings' open for public discussion and critics. After some classes, I started writing reflection on my teaching practice and it helped me to develop my teaching skills. My recent concept of researcher developed thereby helping me to become a critical teacher researcher.

I have come to know that critical research critically examines the positivistic perspective of rationality, objectivity and truth. Critical social science promotes self-reflection which results in attitudinal change, and thus critical teacher researcher challenges the current educational system that puts emphasis on using students as numbers rather than persons. It helps to develop as a reflective thinker. Self reflection and self questioning are the key terms of critical teacher researcher. I started walking transformation journey in teaching profession by applying different teaching method and becoming a critical user of it. It is based on learning as a system of profound knowledge and taking actions based on leading with knowledge and courage.

Curriculum as Ratification of Absolutism: An Inquiry

10th April, 2012
T o
The Director
Curriculum Department Centre,
Head Office, Kathmandu, Nepal

Dear Director,

You may get surprised getting this letter from a new/an unidentified person and ignore it.

I want to take you back to the beginning of the year 2009 A.D. probably you were the curriculum officer at that time. My facilitator Bal Chandra Luitel had also sent a letter and in a similar fashion, my senior batch student Kamal Bahadur Khatri had also sent you a letter in end of 2012. I hope you might have gone through, if not, please go through it once. I remind you this letter is sequel of Luitel (2009) and Khatri (2012). I homily request you to respond it honestly. I hope this letter to some extent could be a useful paper related to your project. I unfold the reason through this letter why they sent you that letters and why I'm also sending this letter. I heard from some reliable sources that your office is going to reorganize or restructure our school curriculum very soon as you had done before more than a decade. It's me a secondary school mathematics teacher teaching for more 7 years and currently involved in a research project in an alternative university for my master degree. I am doing a research in 'Teacher-Students relationship and its potential impact on learning' or I'm seeking for alternative perspective. During my learning and involvement in my research project, I am stimulated to alternative approach of teaching and learning to understand students in different forms to develop the nation. I think, curriculum is a key document to direct our educational endeavor and it is almost no possibility to meet you and have direct conversation. So this letter has come up to resolve my problems easily, with messages to be incorporated in our curriculum for transformative learning towards social justice, empowerment and inclusiveness. I think, somehow, it is a suggestion, you may think a proposal, which may help you to convert your restructuring planning to reformation planning. I would like to clarify you that I have incorporated letter. In the first letter, I have discussed our traditional image of curriculum through my experience as a mathematics learner, mathematics teacher and novice researcher. I have attempted to give you some helpful ideas for reformative of curriculum for future generation to understand the need of teacher-students while teaching and learning mathematics.

Sincerely yours,

Niroj Dahal

Powerless Students and Controlling Curriculum: The Relationship

Dear Curriculum Director,

I have extended my personal views about the curriculum development addressing powerless students in the classroom that students become unattractive, teacher keep on controlling and dominating in the classroom in his/her ways. Students seem to be listening passively to the teacher without any attraction and cross question. I assure you that it's just my personal view. I am including the curriculum which I have been practicing since I was a student to date as a teacher in our classroom using three metaphors given by Schubert (1986) curriculum as content or subject matter and curriculum as discrete task and concept, curriculum as intended learning outcomes. There as on for taking these issue in this chapter to explore how past and present curriculum of Nepal has appeared as teacher dominating

classroom, silence, un-inactive students (Luitel, 2003, 2009) and environment of teaching and learning. With such a curriculum, how will the relationship between teacher and student develop? In my opinion, the use of metaphorical thinking in my pedagogical practice describes my past and present beliefs about the nature of mathematics and my classroom practices with students, teachers and even researcher.

In this letter I'm extending my opinion about our teaching and learning activities within the boundary of school walls, under the full control of school administration and under the teacher's perception and desire. Have you ever visited such authoritarian school setting where students have nothing to do with them, everything is controlled by outside and students feel horror? I remembered my friend leave his schooling being unfit with his teacher's interest. There are many such students, from my experience, who drop out from their schools due to anxiety, especially in mathematics. You might have heard from the Nepalese media that a number of students attempts suicide because of their failure in examinations?

Amit and Fried (2002) revealed in their research that dissatisfaction grew from students leaving school with only minimal mathematical knowledge and skills, a dramatic decrease in the number of individuals desiring to pursue mathematically aligned careers, and, perhaps most appropriate in today's high stakes accountability classroom environment, students average below performance on any form of examination. Don't you think that one or sole of the major causes and responsibility for creating such environment is due to our curriculum direction and control? If you have a time to think on, please think for a while, what sort of future generation we are going to prepare for future?

Reviewing my learning days, I always feared teachers' unhelpful behavior, principal's authoritarian school rules and repeated standardized test for evaluation to explore from my learning and teaching journey. I try to appraise past and present school curriculum of Nepal through some metaphorical images I constructed from my experience along with the metaphors as discussed by Schubert (1986). According to Willison and Taylor (2006), metaphorical thinking promotes open and embodied inquiry for exploring multiple facets of knowledge and knowing by making use of images and imageries.

My approach and understanding of curriculum as a mathematics teacher is/was very narrow. Policies and objectives also have been determined in accordance with our curriculum. Particularly, mathematics teacher must understand its approach of teaching to fulfill the desired objectives of the curriculum. As a teacher, I have heard that curriculum is our legal document for instruction on how, when, what to teach but throughout my journey of learning and teaching I have not read it yet. At the time probably for me the image of curriculum was that content of subject matter. I think that a teacher was a source of knowledge; students were powerless entities of the classroom or school. My role was to transmit knowledge by defining the problem, solving the algorithm, proving the theorem by rote memorizing via strongly endorsed role as a controller.

Dear curriculum director, do you think that this type of curriculum to promotes the teaching, learning activities in friendly environment. How can we make our students self empowered, independent, critical and creative learners and teacher a thinker? I hope that you will not erase my critical viewpoints regarding these curriculum images thereby taking a

serious action to change our curriculum to develop a cordial teacher-students relationship in learning.

Extending the Text

Here, we have tried to portray how our mathematics classroom practice was dependent on textbook, prescribed curriculum and transmission of knowledge rather than creation. In our experience, throughout elementary school life, we took our textbook as the main source of guidance for our practice and the role of the teacher is active for transmission of knowledge. It was a reference for teachers to teach in the classroom and for students to use as the main source of practice. In our view, learning mathematics or doing mathematics are different. As a student, our perception was the same about mathematics learning or doing. Teachers also view mathematics teaching to finish the prescribed syllabus in time. However, they are not worried about students learning outcomes. We also determine ourselves at the level of satisfaction if we are able to do the problems form the book. For learning mathematics, Lax (2018) writes good teachers, at any level, rarely follow a textbook faithfully, even if they have authored it. Here our concern is not to explore whether the use of the textbook in the classroom was good or bad; our concern is to explore how textbook in the classroom practice was directing our practices towards exam oriented learning. It was/is our culture that how good we were in mathematics used to be dependent on that how far we have reached in our textbook. Textbooks are designed to provide an authoritative pedagogic version of an area of knowledge. We did not know whether our textbook was/is in/sufficient to address the needs of the curriculum? We did not know how the curriculum and textbook were designed according to the needs or interest of teachers or students or society. Supporting the view of Smith that authority is the textbook from when "the answers to all mathematical problems are known and found" (Stemhagen & Smith, 2008, pp. 390-391). Viewing from this perspective, it can be said that our mathematics books just give a straight way to what is needed to practice to attain the desired product and role of the teacher is to transform the knowledge form head to head.

Analyzing and constructing pedagogical practices as a student throughout our journey, we think probably most (if not all) of our learning journey was oriented to drilling mathematical problems from textbook and to be prepared for examination to achieve a label of pass or fail through paper pencil test.

Further, as a teacher, the routine of teaching mathematics continued with the methods and practices as is obvious from the beginning of the teaching career. We did not let our students ask questions. We did not encourage them to do group work nor did we apply cooperative learning. The class used to be in full control of the teachers and the students were passive listeners and copiers. We considered ourselves as the supreme source of all mathematical knowledge for them. In this regards, teachers were a transmitter of the knowledge and students were the receivers.

While analyzing first author teaching learning practices in various perspectives in different form of relationship in mathematics learning and teaching. We have discussed first authors' experience of teaching and learning of mathematics and pedagogical transformation after entering School of Education at KU. We have tried to explore how a novice teacher educator and novice researcher transformed his belief, attitudes and practices of educative

process from a traditional approach towards constructivist and post modernist approach to develop cordial relationship.

In this regards, first author was conditioned to follow a behaviorist approach in the classroom teaching and learning. First author thought himself as a good teacher and tried to do very good in the classroom teaching by lecture and solving a few problems but his eyes opened when he joined School of Education. This school really became a new avenue in first authors' journey from where he learnt about constructivism and its application in the classroom teaching and learning to develop cordial relationship with students.

The narratives of the first author were synthesized and the following themes developed:

Showing interest in students' lives and classroom communication. The busy secondary teachers with more than 200 students in all classes can hardly know details about every student's life. However, teachers can cultivate a positive relationship by knowing students by name; asking them what they thought of recent occurrences, such as a sports, popular movie, or song; asking them what they're interested in, and simply inquiring whether the school is going well for them. Students consider that teachers are supporter to them if the teachers appear to want the students to do well. Certain teacher behaviors work against this perception. For example, a teacher who announces that he or she will reward no more than five as at the end of the session is doing little to foster the perception of advocating for students. Such behavior says to students that the teacher is more dedicated to an illogical criterion than to student success. Teachers can encourage the insight of teacher encouragement by setting up times when students can talk individually with them, asking struggling students if they need assistance, and helping struggling students decide what they need to work.

Never giving up. Promoting this perception means that even when students don't perform well or when they get behind in their assignments, the teacher should continue to offer ways to help them to catch up. The teacher might set up small-group tutorial sessions that students can attend or enlist peer tutors from among those students who have mastered the material. Never giving up on students also includes being a leader for some students, telling them to "hang in there" and continue trying. Teachers might also narrate individual stories of when they had a particularly tough time with a class.

Friendly behaviours with students. Fostering the perception of a friendly relationship has nothing to do with how "friendly" a teacher actually feel. Many teachers' behaviors promote this perception of friendliness. For example, a teacher might banter or joke with students; smile or make eye contact; or, when appropriate, place a hand on a student's shoulder or pats a student on the back.

Conclusions

In conclusion, teacher-student relationship is to be a dynamic factor in classrooms of both remote and urban schools in Nepal where Nepalese mathematics teacher have not been able to link relationship of teacher and students. As relationship is one of the tools to strengthening students learning. This article rated teacher's deep-rooted behaviors highly on student-teacher relationship. These ratings revealed the level of value and appreciation students had for efforts on the part of their teachers' develop personal and deep relationships.

Additionally, this article has revealed to be a useful tool for capturing student perceptions of the teacher-student relationship and allows for the monitoring and assessment of the resiliency factors, as well as personal reflection by teachers regarding student-teacher relationships within their classrooms as it brings to light areas in need of improvement as well as areas of strength. Beyond overall improvement of the culture of classrooms, the implication of this research article should target behaviors and attitudes teachers can focus upon to more effectively develop relationships with their students, as they strive to provide a supportive environment that is built upon high expectations, positive encouragement, and a healthy dose of humor. These same themes, which were valued by students, may also serve to assist administrators to more effectively hire teachers.

A further conclusion is that the student test scores, teacher accountability, and school performance have taken the central stage in today's educational landscape in Nepalese education. The need for on-going professional development through which teachers learn the latest research-based methods of instruction, as well as how to utilize the newest technologies is more important now than ever before. However, teachers must overlook the importance of cultivating teacher-students relationships in their classrooms. Teacher-students relationships are built through purposeful and continual effort, primarily on the part of the teacher. It is in the bond of teacher and student where learning takes origin and begins to grow, and the degree to which a teacher invests in those interactions not only affects learning outcomes and student behavior in the classroom but also potentially impacts each student's future achievements and success.

Implications

This research article can offer some insights to the readers, novice teachers, novice teacher educators, and novice researchers. We do not claim that we have used very ironic referents in the research but some of the insight for inclusive pedagogy. We have used constructivist ideology which could be some empowering referents to the future generation for better understanding and developing a cordial teacher-students relationship.

The following discussion of the students' and teachers' responses to the revealed themes perhaps holds the most important implications of this article.

Using a sense of humor. Students value teachers who demonstrate a caring sense of humor. Whether expressed through humorous stories of friends and family or through appropriate, well-intention jokes, this caring sense of humor conveys to students that their teachers are "'human' in the fullest sense of the word" (Saul, 2005). School is concerned with more than achievement and test scores in every subject, instead of with an environment where children can grow and develop. Moreover, it is a secure place for knowledge where students are surrounded by those who care and are willing to share of themselves.

Consistent help (with high expectations) with students. Students need to trust that their teachers are going to be there to help them when needed, but are going to do so while retaining high expectations for their students. These senses of trust with consider to a teacher's readiness to assist was shown to be urbanized differently in each of the classrooms, but finally teachers need not only be available to assist, but also be seeking out students in need of help. The identification and addressing of student needs and the resulting trust that is developed can

contribute to students' academic success (Lee, 2007; Hughes, 2016).

Games for learning. From our study, we knew that teachers need to make learning fun and upbeat in their classrooms but this needs to happen in such a way so that learning is indeed still taking place. Spontaneous and relatively simple games for reviewing concepts, such as a class "Quiz Bowl" and "Task Cards", when implemented at appropriate times, were most appreciated by students. The implementation of such a game or activity at a particularly tedious time can breathe life into the most stagnant of environments. According to Frey and Wilhite (2005), who built upon the work of William Glasser, this "combination of laughing and learning can maximize the relationship that educators have with students."

Active listening. Another implication deeply rooted in our different graders is the importance of teachers actively listening to their students. The school day can be extremely hectic and busy, yet students need to know that they are being heard. Active listening, such as getting down to the student's level and maintaining eye contact, giving non–verbal feedback such as nodding, and responding appropriately, does not take much effort on the teacher's part, yet goes a long way to help students feel appreciated, acknowledged, and respected (McCombs & Whisler, 2014). In addition to these general suggestions for actively listening to students, Dahal (2013) also have some non-standard suggestions for responding to ensure that students leave the conversation feeling appreciated and that their teacher has understood. Beyond the basics of active listening, recommendations include the reflection of student comments, avoiding criticism or blame, and helping student arrive at a plan as opposed to suggesting solutions.

The sense of belongingness. It is important for teachers to help students experience a feeling of belongingness in their classrooms. When students feel that they belong, they are more helping, more considerate of others, and more accepting of others, including those not in the friendship group. And Jensen (2009) author of *Teaching with Poverty in Mind* stated, "What you want to emphasize at school is moderate social status and group acceptance" (p. 90). He went on to emphasize the importance of developing a sense of community within the classroom stating, students who know, trust, and cooperate with one another typically do better academically and that students who feel accepted, have sufficient social status, and maintain positive relationships.

Encouragement by focusing on character instead of appearance. Another suggestion that stems from first authors' different narrative included how teachers convey that they (the students) are doing a good job. The encouragement should be both spoken and written (Dahal, 2013). The students interviewed in the study shared examples of teachers not only writing "Good job!" but also writing the "good" grade earned on top of particular assignments with accompanying smiley faces and notes which included specific compliments and encouragement. With regard to the written forms of encouragement that might be included on assignments and/or notes to students, as most appreciated and effective when it is individualized, specific, and deserved. And, finally the theme revealed was to complete omission of any reference to their teachers' physical appearance or style. The implication of this result is perhaps more beneficial for administrators and human resource hiring officials than for teachers.

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