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## **Abstract**

This study has explored the concepts and dimensions of CDRE to understand its educational implications. The article is based on the review of conceptual and theoretical literature about cultural diversity and multicultural education following diversity-related issues. Guided by Vygotsky's sociocultural theory, post-modernism, and multicultural education theories, the study interprets the existing and observed educational status. By reviewing the policy documents including NCF, NASA, and SSDP and relevant research reports, the study found that the existing educational status of Nepal is being oriented towards particular social class or mainstream culture or teachers' culture. The paper has identified the dimensions of CDRE as CDRC, CDRI, R&I, and CDRA to ensure equity in education which can translate the existing particular social class or mainstream culture or teachers' culture-based instruction into a mass or all students' culture-based instruction in the classroom.

**Keywords:** Cultural diversity-responsive education, multicultural curriculum, cultural diversity-responsive instruction, equity in education

# **Background of the study**

When I was studying at school level, I had observed that the students having a good level of achievement were mostly from the mainstream culture, and those from ethnic minority were having a poor level of achievement. Further, when I had an opportunity to teach in-service student teachers having long experience in school teaching (20 years or more), I asked them whether they were using the illustrations and examples in classroom instruction (CI) from the culture of the students rather than from teacher's culture. They replied that they were using illustrations and examples from the teacher's own culture. These contexts indicate that Nepal's CI is likely to be favorable for the few students from teachers' cultural backgrounds but probably not in favor of all.

Regarding the status of equity in education, a huge disparity is found in students' achievement on the ground of diversity – as shown by the National Assessment of Student Achievement (NASA) (ERO, 2015; ERO, 2016). Moreover, School

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Sector Development Plan (SSDP) 2016-2022/23 has set the objective of equity in education for ensuring inclusion and equity in terms of access, participation and learning outcomes, with a special focus to reduce the disparity between and among different social groups of the society (SSDP, 2016). Further, National Curriculum Framework (NCF) also stated that there is no satisfactory access to education for the children from indigenous, Madheshi, female, Dalit and disability backgrounds (NCF, 2019). Considering such a context, I wonder to know what could be the dimensions of education that ensure equity in the context of Nepal.

Curriculum is likely to be a primary pot where minority cultures are melted with the mainstream culture if the cultural diversity of the society is not considered properly in classroom practices (Mayo, 2013; Roberts, 2014; Krasnoff, 2016; Dhungana, 2020). In the informal conversation with in-service teachers, they argue that the disparity in achievement between the students from different ethnic backgrounds is due to the lack of a Cultural Diversity Responsive Curriculum (CDRC) because the national curriculum which is practiced in schools is more or less monolithic rather than being multicultural. Moreover, teachers felt problems in ensuring parity in achievement between the mainstream and minority culture-based students as they are illiterate with Cultural Diversity Responsive Instructional (CDRI) strategies. Therefore, the teachers who are working in a culturally diverse society today, are under pressure to design teaching programs that benefit all the students in the classroom (Lynch and others, 2016).

Cultural Diversity Responsive Education (CDRE) is designed by carefully considering the context of students' home, community and society's culture into the school's all activities to ensure equal participation of all children regardless of the caste/ethnicity, culture, gender, religion, language and geography for keeping all students engaged in classroom learning (Vygotsky, 1930; Banks and others, 2001; Walker, 2003; Freire, 2005; Banks and Banks, 2010; Gay, 2013; Mayo, 2013; Roberts, 2014; Krasnoff, 2016; Dhungana, 2018; Dhungana, 2020). It indicates that CDRE is the reformation of education by responding students' cultural diversity, instilling hope and reward to those students who are being marginalized, translating CI as the knowledge construction process, and the problem-posed-teaching and learning rather than adopting regurgitation based instruction. However, there is the hegemony of regurgitation instruction, religious monolithic instructional strategies, cultural diversity unresponsive curriculum, and cultural diversity unresponsive student assessment (Singh, 2015; Pradhan, 2016; Dhungana, 2018; Dhungana, 2020).

Students are likely to perform better on academic performance when the school adopts instruction that is responsive to, and respectful of, them as culturally

situated (Banks and others, 2001; Gay, 2010; Wearmouth, 2017; Dhungana, 2020). On the other hand, teachers are teaching their culturally diverse students from teachers' cultural perspective, emphasizing the hegemony of regurgited monolithic instruction, and designing students' cultural diversity unresponsive assessment. Therefore, I wonder to explore the dimensions of CDRE which are considered the benchmarks for mass or all student-based instruction rather than being the instruction based on a few teachers' (or the 'mainstream') culture.

Equity-based education can be understood as CDRE which emphasizes the voice against social discrimination, exploitation and injustice towards achieving the target of social transformation (Mcwhinney & Markos, 2003; Freire, 2005; Banks & Banks, 2010; Farren, 2016; Kimanen, 2018; Dhungana, 2020) – which is not solely a matter of cultural mosaic but also strives to achieve the goal of social empowerment (Banks, 2006; Joskin, 2013). Educational transformation is possible to realize only when classroom culture becomes responsive to students' cultural diversity therein (Deakins, 2009). Therefore, CDRE seems essential if education is considered a tool for social transformation.

Education programme should be designed for holistic development of the individual (Ravi, 2015). It is desired to let flourish multiple intelligence (Wiles & Bondi, 2011). Education must consist of the cultural contexts of students to make possible the flourishing of innate capacity of the individual (Vygotsky, 1930; Freire, 2005; Gay, 2013; Mayo, 2013; Krasnoff, 2016). It indicates that teachers are required to be competent in CDRI practices; and they should possess the repertoire of R&I by which each teacher can research every student and approach such an instructional process as per concluding the research. It indicates that teachers are required to be CDRI experts as well as independent learners so that they can apply research-based instruction. However, teachers are unlikely to be independent learners as the educational system has allowed undergraduate students to become school teachers in Nepal. It strikes me to explore more about how Research & Instruction (R&I) can be established in CI so that students with all cultural background can be equally benefitted.

CDRE education can be established when we design tests and test items that are students' cultural diversity responsive. We can call it Cultural Diversity Responsive Assessment (CDRA) as another component of CDRE that ensures culturally fair student assessment by modifying the test items making them suitable from the perspective of students' cultural diversity (Mayo, 2013; Krasnoff, 2016; Dhungana, 2020). It is often heard that minority culture-related students are facing discrimination in student assessment, as all test items are based on mainstream culture (Singh, 2015; ERO, 2015; Pradhan, 2016; Dhungana, 2020). Therefore, I am interested to explore the ways of student

assessment strategies which can be non-discriminatory for both mainstream and minority culture-based students.

# **Research questions**

In an attempt to explore the dimensions of cultural diversity-responsive education, the study has been undertaken to answer the following research questions:

What are the dimensions of CDRE?

What strategies of curriculum development are needed for ensuring CDRE?

What instructional practices are required for CDRE?

What are the roles of research-based instruction for CDRE?

What are the strategies of student assessment that can contribute for CDRE?

#### Theoretical framework

This study has set the theoretical orientations of Vygotsky's sociocultural theory, post-modern philosophy, and multicultural education to ensure the theory-based exploration of the dimensions of CDRE. These theories are used for analyzing the context of the study, document analysis, and concluding the study.

# Vygotsky's sociocultural theory

As Vygotsky argued, mechanical process of learning or botany or zoology principle-based learning occurs almost entirely from animal kingdom, and answers to questions about children are sought in the experiments carried out among animals (Vygotsky, 1930). It opposed those learning theories which were developed on the basis of experiments with different animals; and it advocated the sociocultural influence in learning. Moreover, Vygotsky's sociocultural learning theory defined that the cognitive development of a child is affected by the culture, social factors, and the language that the child is involved in (Ornstein & Hunkins, 2018; McLeod, 2018). The cognitive development of a child is the amalgamation of language, social context, and culture of the child involved. Children construct their knowledge via a socially and culturally constructed context. Therefore, social interaction plays a fundamental role in the development of cognition (ibid.).

Child's cultural development appears twice: first, at social or interpsychological level; and second, at individual or intrapsychological level (McLeod, 2018). It showed that child psychology is fully intertwined with culture.

Learning space is specified in terms of "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem-solving under adult guidance, or in collaboration with more capable peers (Vygotsky, 1930, p. 86)". Therefore, learning can occur when it is culturally and socially mediated; and optimum development is possible when one receives adult guidance therein.

This theory has helped me to understand that education always needs to incorporate socio-cultural aspects. I have followed this theoretical orientation to explore the strategies of curriculum development, CI, research-based instruction, and student assessment required for CDRE.

# Post-modernism philosophy

Postmodernism philosophy advocates education that ensures equity to those marginalized groups as CDRE is considered here as the theoretical base of this study. Postmodernism is such a philosophical orientation that has questioned modernism's Eurocentric metanarratives and its claim to the universal rational structure by which to judge the good, the true, or the beautiful (Ozmon, 2012). It advocates such education which plays a role to empower and emancipate those who lie at marginalization and those who are living an identity crisis or give hands to those who have silenced narratives.

Postmodernists propose an "emancipatory" postmodern education in which a curriculum should include the issues of power, history, personal and group identities, cultural politics, and social criticism, all leading to collective actions (Ozmon, 2012). Postmodernists urged the oppressed and enlightened to throw off the shackles of public schools and create their curricula with personal relevance based on their values (Wiles & Bondi, 2011). It helps to conceptualize the CDRE by creating a curriculum with personal relevance to students' culture.

It has helped me to understand the educational system that needs to be cultural diversity responsive so that the oppressed or marginalized groups can be empowered and emancipated through education. I have used this theoretical orientation to explore the strategies of curriculum development, CI, research-based instruction, and student assessment required for CDRE.

#### Multicultural education

Multicultural education has been a major theoretical orientation to reform our existing system of education where student diversity is believed to be treated fairly. It is defined as:

...an idea, an educational reform movement, and a process whose major goal is to change the structure of educational institutions so that male and female students, exceptional students, and students who are members of diverse racial, ethnic, language and cultural groups will have an equal chance to achieve academically in school. (Banks & Banks, 2010, p. 1)

Multicultural education has emphasized that education should be compatible with the student's cultural background. It seems educational opportunities are more for the middle- and upper-income students than for low-income students (Banks & Banks, 2010; Gay, 2013, Mayo, 2013; Krasnoff, 2016; Ornstein & Hunkins, 2018). Therefore, it needs to be an ongoing process to change the total educational environment to respond to the demands, needs and aspirations of various groups. Here, culture means the values, symbols, interpretations, and perspectives that distinguish one person from another in modernized societies. It has helped me to understand that multicultural education can be an attempt to convert our existing educational system into CDRE.

#### Reflection on the theoretical framework

The theoretical framework has emphasized reform in education by following the cultural background of the students – which in turn is likely to ensure equity. It is essential to design curriculum, instruction and student assessment that are needed to be compatible with every student's cultural background to ensure CDRE in a society that is culturally diverse.

# Methods and procedures

This is a theoretical research article carried out by visiting several kinds of literature related to theories, books, research articles, and empirical studies on diversity in education. The various works were explored as required by Vygotsky's socio-cultural theory, post-modernism philosophy and multicultural educational theories. Arguments were explored, judged and critiqued as per the concepts, instruction, teaching innovation, and student assessment to understand the dimensions and concepts of CDRE. The themes that emerged from literature review are drafted and refined as per the research questions, and presented under the thematic headings and sub-headings.

#### Results and discussions

This study has explored the possible dimensions of education that can address the issue of diversity. The results of the literature review are discussed here under the sub-headings including the need for reformation of education as CDRE, major challenges in establishing CDRE, curriculum development strategies for CDRE, instruction strategies for CDRE, research-based instruction for CDRE, student assessment strategies for CDRE, and dimensions of CDRE.

#### The need for reformation of education as CDRE

Educational practices are required to be reformed following the students' cultural diversity therein to ensure equitable learning opportunities for all students (Bank, 2006; Gay, 2010; Ozmon, 2012; Ornstein & Hunkins, 2018; Dhungana,

2020). The current instructional practices of Nepal are reviewed under the sub-headings including 'continuation of religious pedagogies', 'regurgitation instruction', 'non-equity pedagogy', and 'homework and punishment-directed instruction', as presented below.

# Continuation of religious pedagogies

Ancient system of education was mainly Gurukula, Madarasha, and Monastic education systems where instructions such as oral transmission, recitation, repetition, rote memorization, and drills were used; and those methods are still employed in the modern education system (Singh, 2015; SSDP, 2016; NCF, 2019; Dhungana, 2020). These instructional practices are likely to prepare students as docile listeners rather than leading them as critical thinkers; and the curriculum becomes futile and non-CDRC. These pedagogies have emphasized curriculum as subject matter-centered; methods as lecture, learning as regurgitation, and assessment through high-stakes standardized testing – without considering cultural diversity.

Narration-based instruction on a subject-centered curriculum cannot empower and emancipate the students who are from marginalization and minority groups (Freire, 2005; Bank, 2006; Gay, 2010; Ornstein & Hunkins, 2018; Dhungana, 2020). Therefore, traditional pedagogical patterns should be reformed.

## Regurgitation instruction

Classroom delivery seems to be teacher-dominated with emphasis on rote learning employing the methods such as lecturing, paraphrasing, drills, reading and repetition from the textbook, and memorizing questions and answers (Singh, 2015; SSDP, 2016; NCF, 2019; Dhungana, 2018) – generally characterized by 'whole-class teaching', leaving the 'weaker' learners behind, and the classes remaining teacher-dominated or textbook-based. Regurgitation emphasized instructional patterns beneficial to only those who are from mainstream culture. The oppressed and marginalized groups are likely to be deprived of equitable learning opportunities in such pedagogical practices (Freire, 2005; Bank, 2006; Ornstein & Hunkins, 2018; Dhungana, 2018; Dhungana, 2020). It indicates that regurgitation-based instruction is required to be reformed for CDRE so that we can ensure equitable learning opportunities for all sorts of students.

## Non-equity instructional practice

CI seems vastly monolithic in that single language, single session, same material if used, and the same method are used (Singh, 2015). Moreover, lecture-dominated CI practices are likely to condemn cultural diversity-responsive instruction (Freire, 2005; Bank & Bank 2010; Gay, 2013). Diversity responsive instruction is expected to modify teaching following the dialects spoken by each

student therein to facilitate students' learning (Banks, 2006). It shows that our instructional practices require transformation for establishing CDRE.

# Homework and punishment-directed instruction

Teaching learning process, particularly in institutional schools, is conducted by assigning homework for the next day and checking the completed homework assigned the day before; and students are punished if not completed (Dhungana, 2018). It seems students are destined to regurgitate the contents and paste the regurgitated content as homework to avoid corporal punishment. Homework and punishment-driven instruction can never develop the capacities of 4Cs such as critical thinking, creativity, communication, and collaboration (Fidel, 2015). Thus, it is essential to change the pattern of instruction to ensure CDRE. When instructional practices are designed for engaging students in 'what to think' instead of 'how to think' then education is likely to be non-CDRE.

# Major challenges for establishing CDRE

It seems the current pedagogical practices are required to be reformed by translating them into CDRE to ensure equitable learning opportunities. However, such reformation incorporating the voice and representation of marginalized groups is always being resisted due to existing power domination (Freire, 2005; Bank, 2006; Ozmon, 2012). The major challenges for establishing CDRE are observed as presented below.

## Nationalistic cultural identity

The national culture is always favorable to national identity. Political perspective viewed the ethnic-cultural practice as a threat to the national character. The nationalistic character wants a standard language policy rather than modifying the language to make it more responsive to ethnic culture (Liddicoat, 2007; Pradhan, 2016). National-integration perspective intends to make the fusion of all types of people into one national character by requesting them to compromise their cultural and caste-based stances (Ravi, 2015; Pradhan, 2016).

Educational practitioners have favored mother tongue education or diversity-responsive education from the standpoint of social justice (Vygotsky, 1930; Bank, 2006; Gay, 2010; Ornstein & Hunkins, 2018). However, the mainstream group may not be helpful in imagining a unified national community (Pradhan, 2016). The nationalistic principle has shadowed the pedagogical practices that are responsive to ethnic culture.

# Cultural hegemony

Due to cultural hegemony in educational activities, ethnic cultural practices are redirected towards the mainstream culture. There are still high pedagogical expectations from learners of diverse backgrounds to adapt and perform in classroom activities that replicate mainstream educational and pedagogical cultures (Diallo & Maizonniaux, 2016). Cultural diversity-responsive education has failed to achieve significant attention in England because of opposition from cultural restorationists' political groups who see cultural diversity as a threat to their view of national cultural identity (Burtonwood, 2002). An observation in England has shown that the Greenland style of classroom discourse has discouraged competitiveness and allowed individuals to remain passive (ibid). In the context of Nepal, due to the lack of appropriate pedagogy of CDRE, marginalized groups have not been empowered that much. The diversity neglected instruction can never empower all students in the classroom; and it needs to be transformed into CDRI strategies for ensuring CDRE.

# **Curriculum development strategies for CDRE**

The essential strategies for developing a curriculum for CDRE need to focus on developing CDRC, preparing diversity-responsive policies and materials, and preparing diversity-responsive teachers who have cross-cultural and multicultural literacy (Bank, 2006; Gay, 2013; Roberts, 2014; Dhungana, 2020).

# Concept of cultural diversity responsive curriculum

CDRE can be established when we design a curriculum in such a way that provides an avenue for all cultures to be nurtured (Bank, 2006; Gay, 2010, Ornstein & Hunkins, 2018). CDRC designs such a curriculum that allows nurturing the cultural diversity of school and society. Curriculum development should take place by analyzing the culture of the society (Taba, 1962). Tyler has also suggested screening out curricular objectives by the philosophy of the society (Ornstein & Hunkins, 2018). Since the time of Tyler and Taba, student's cultural background was emphasized to be incorporated. Later, some theories and philosophies emphasized developing multicultural curricula to empower the marginal groups. The post-modernist curriculum tends to orient curriculum for personal transformation by addressing cultural identity of the students therein (Marsh, 2004; Ozmon, 2012). Further, the curriculum should be designed for social transformation to empower and emancipate minority children (Freire, 2005; Banks and others, 2001). This literature has suggested incorporating the cultural contexts of home, school and society into school education so that education can play the role of reconstructing society to emancipate and empower the students who are from minority background. Therefore, CDRC can be defined as the curriculum that incorporates cultural diversity, addresses the voices of marginality, and reconstructs society into an equity-based one.

#### Diversity-responsive policies and materials

Diversity-responsive education needs to be framed through educational policy. Problems are found with diversity-responsive instructions because of education policies that ignore diversity in classrooms (Diallo & Maizonniaux, 2016).

A study suggests for improvement in curriculum and educational materials to make them cross-culture responsive (Diallo & Maizonniaux, 2016). It is important to ensure cross-cultural materials for developing pedagogy that is responsive to ethnically diverse students (Jabbar & Mirza, 2019).

Pedagogical practitioners need to be sincere with curricular and textbook issues that ignore cultural and linguistic variations (Diallo & Maizonniaux, 2016). Therefore, CDRI strategies based on effective CDRE are possible where education policy, curriculum, and materials are culturally screened. In the context of Nepal, diversity-responsive educational policies and materials are essential to improve the disparity of students' achievement on the ground of diversity (ERO, 2016; NCF, 2019; SSDP, 2016).

# Diversity-responsive teacher preparation

It is required to prepare teachers with significant degree of cultural/lingual sensitivity, who are more passionate about and committed to culturally critical concepts related to culturally responsive teaching (Ríos, McDaniel, Stowell, & Christopher, 1995). It shows that teachers can work as an agent of CDRI for effective CDRE only when they receive CDRI professional development opportunities.

# Cross-cultural and multicultural literacy

Some studies found that diversity-responsive pedagogies are not employed due to the lack of cross-cultural discussion competency and multicultural literacy in teachers (Zaidi, Verstegen, Vyas, Hamed, Dornan, & Morahan, 2016). Teachers require critical consciousness and cross-cultural competency for instructional design in which innovative approaches will be developed by researching indigenous people (ibid.). The same situation can be found in Nepal where there is disparity in students' achievement on the ground of diversity due to the lack of cross-cultural discussion competency and literacy. It redirects us to make teacher preparation courses and teacher training syllabi more multi-culture responsive. Another study suggested that teachers need to achieve cultural congruence between home and school for diversity-responsive instruction (Burtonwood, 2002). It shows that creating a congruent environment between home and school is a major task in ensuring CDRI-based CDRE practice.

# **Instruction strategies for CDRE**

Appropriate pedagogical transformation or CDRI is essential for ensuring CDRE. CDRI strategies are about modifying the styles of teaching and learning according to the context of home and culture of students, keeping all the children active in classroom, maintaining their engagement with learning, ensuring equal benefit for them regardless of caste/ethnicity, culture, gender, religion, language, geography, and empowering the marginal children through education (Vygotsky, 1930; Bizzell, 1991; Banks and others, 2001; Walker, 2003; Freire,

2005; Banks, 2006; Banks & Banks, 2010; Gay, 2010; Gay, 2013 as cited on Dhungana, 2020). It seems essential for every country where the students are culturally diverse and it is also considered applicable in the context of Nepal. The appropriate CDRI strategies for establishing CDRE are discussed here.

# Problem posing education

Narration-based education has created hegemony of teacher-centered pedagogy where teacher knows everything and students know nothing, teacher chooses and enforces his choice and students comply, and teacher is the subject of the learning process, while the pupils are mere objects (Freire, 2005, p. 73 as cited on Dhungana, 2020). It indicates that we need to transform our existing instructional patterns to reform the educational system through CDRI strategies for effective CDRE.

## Collaborative and dialogic instruction

Diversity responsive instruction is likely to be developed when there would be collaborative and dialogic pedagogy, students turn into affinity groups in which they feel they could talk more freely and provide reality checks for each other (Bizzell, 1991). It shows that collaborative and dialogic instruction approach is likely to be helpful for CDRI strategies based on CDRE.

# Confrontational instruction

Diversity-responsive pedagogy can be a confrontational classroom style in which students are encouraged to assert themselves as critical thinkers, encouraged to speak their voices in an atmosphere of safety to enable all students in the classroom (Bizzell, 1991). This confrontational style encourages even the students who are afraid of seeing themselves at risk to raise voice in the classroom with an atmosphere of safety. It seems that if we employ the patterns of instruction as a confrontational style, learners become active and it would ensure CDRI strategies based on CDRE.

# Reflection sharing instruction

The pedagogical approaches are required to acknowledge that whatever perspectives are brought to the classroom they must be understood as partial, limited, conditional, and potentially oppressive to others (Bizzell, 1991). The pedagogical practices that redirect learners to become the passive recipients of information have never empowered students. It can only expect to get empowered students where there is a learning culture of sharing each other's reflection on every content and class at school (Freire, 2005). The reflection-sharing instruction tends to encourage students to share their views about the content being discussed in the classroom which is likely to become an approach of CDRI strategies based on CDRE.

Student diversity pedagogy is likely to be peer interaction which allows students to enter the zone of proximal development where a less able peer can enter a new area of potential development through problem-solving with someone more able (Gucciardi, Mach, & Mo, 2016). Peer interaction-based instruction itself is a major approach to intercultural education where every student can have the opportunity of sharing cultural experiences.

# Public pedagogy

There is another concept of public pedagogy which is generally understood as incorporating various forms, processes and sites of education, and learning beyond or outside formal schooling into classroom teaching (Kitagawa, 2017). It redirects us to analyze the patterns of learning styles that exist all over the school service area linked with different ethnic cultures to ensure CDRI strategies based on CDRE.

## Service-learning

Service learning is about providing experiential learning opportunities to learners through volunteerism, community service, internship and field education (Phelps, 2012). This is the voluntary engagement of students in the community whereby their personal development and diversity awareness are possible. Internships engage students in service activities for providing students with hands-on experience that enhances their understanding of the issues being studied. We can apply various types of service-learning for effective CDRE by considering the level of students being taught so that such instructional practices can be community responsive.

#### Non-regurgitation instruction

Regurgitation instruction can redirect teachers to pour their knowledge via narration into the mind of students (Freire, 2005). Regurgitated instruction tends to keep learners as docile listeners, passive, non-creative, and complied with the order of the teacher. As opposed to regurgitation instruction, problem-based learning in the classroom is a non-regurgitation approach – where the teacher works merely as the facilitator for students to make sense of class activities. It is another approach for CDRI strategies based on CDRE.

## **Research-based instruction for CDRE**

Research-based instruction is the major tool for CDRE in which teachers are supposed to continue engaging students in research activities to incorporate the teaching and learning issues and to innovate the CI practices that are likely to suit cultural diversity therein (Mayo, 2013; Krasnoff, 2016; Dhungana, 2020). A research-based teaching approach has contributed to intercultural competence-based instruction resulting in increased student engagement with higher-order

cognitive skills (Deakins, 2009). Any effort will be successful only when we can change classroom culture or attitude and behavior of teachers involved (ibid).

Diversity-responsive instructions are not readymade solutions but a process of research. Researching at school on collaborative learning, critical reflection, dialogue, and inquiry with peers helps practitioners for developing ethnic culture-responsive instructions (Hennessy and others, 2018).

Researchers who want diversity-responsive pedagogy need to start learning from the children who are believed to be capable of reflecting on the content through their unique style of learning (Burtonwood, 2002; Schmidt, 2018). The study further suggested that children's preferences are shared with their peers; therefore collaborative learning should be promoted while researching. The study has suggested that classroom teaching needs to be translated into the inquiry approach so that CDRI strategies based on CDRE can be concretely materialized. The results of R&I-related data are discussed under the subheadings that follow.

# Ethnic pressure-driven diversity in education

A study found that caste and ethnic differentials in entrance and attrition to basic education are serious challenges in Nepal for educational practitioners which must be grappled with by policymakers, educational planners, and researchers (Stash & Hannum, 2001). Ethnic activist organizations seek to place their perceived constituents at the center of development efforts whilst challenging inequalities in existing state policy and practice (Caddell, 2007; Stash & Hannum, 2001; Pradhan, 2016). Ethnic groups have emphasized identity-based efforts for social change, offer scholarship programs for allowing ethnic children to attend school, and aim to promote mother-tongue instruction through the development of textbooks and teacher training in ethnic languages (Caddell, 2007; Pradhan, 2016).

The importance of diversity-responsive pedagogy is argued saying, "culture has been theorized as pedagogy" (Bowman, 2013, p. 601). It shows that pedagogy must be situated with the culture of those who are being involved in study. Interculturality is about mixing local/glocal/global epistemologies, languages, and beliefs into the contents of CI (Guilherme, 2019). These studies have suggested incorporating interculturalism into daily instruction. Therefore, research-based instruction can be a way of incorporating ethnic groups' perspectives into education or a way of translating the current non-CDRE education into CDRE.

# Incorporating a distinct culture of learning

Classrooms are generally composed of students from diverse backgrounds who join mainstream education with their own cultures of learning (Gay, 2013;

Diallo & Maizonniaux, 2016). However, the system of education favors the learners from dominant group/s. Therefore, additional emphasis needs to be placed on developing a practical and functional approach to instruction. A study has suggested that instructional system requires to be responsive to ethnicity, race, socioeconomic status, gender, exceptionalities, language, religion, sexual orientation, and geographical area (Bank, 2006; Jabbar & Mirza, 2019). The student with any form of diversity is likely to have a distinct pattern of learning; so diversity-responsive instruction is complex in itself.

These studies about classroom practices have suggested that CDRE is possible to achieve only when teachers adopt research-based instruction essential to ensure equity in classroom practices. When there is CDRC as guidelines for CDRI then research-based instruction can help CDRE to be realized. It indicates that there must be qualified teachers who can adopt Research and Instruction (R&I) as following students' cultural diversity. All CDRE theories and principles are required to be reflected in education so that students from all cultures can have opportunities for flourishing in their innate capacities.

# Student assessment strategies for CDRE

CDRE educational practice requires distinct student assessment strategies. CDRA is considered the best way for assessing student strategies, which is about designing the test items and evaluation process through the students' cultural context. Post-modern curriculum reoriented the assessment system towards measuring the quality of thinking rather than regurgitation of contents of the textbook (Marsh, 2004; Wiles & Bondi, 2011; Ozmon, 2012; Ornstein & Hunkins, 2018). Further, student assessment system is required to be fair with students' cultural diversity so that all culture-related students can demonstrate their abilities without any exclusion (Mayo, 2013; Krasnoff, 2016; Dhungana, 2020). Any test items that are favorable to only a few students' cultural background cannot be appropriate for administration (Gregory, 2014). Further, it is agreed that the most important factor that needs to be considered in any student assessment is the cultural context of the students targeted by the test (Urbina, 2004). It means if we asked a particular culture-related question such as Dashain or Tihar instead of asking about the student's culture-related festival then those students whose family celebrates Dashain and Tihar can best answer the questions without serious study, while the ones whose family does not celebrate will describe only that much what they have regurgitated. In this way, assessment strategies are also required to be reformed to establish CDRE.

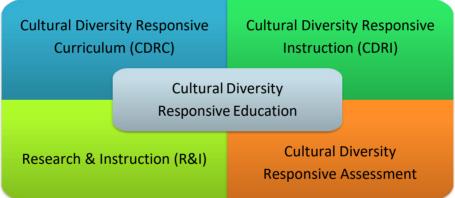
The testing gap between minorities is due to the cultural bias in standardized testing, and to overcome this situation ethnically diverse students should be tested from multicultural perspectives by routinely using different types of techniques to assess student performance in schools (Peterson, 2005). Research has shown that there is a high correlation between high-stakes testing and the success rate of mainstream student culture. However, the hegemony of high-

stakes testing, prepared on the ground of monolithic representation, has itself been the main reason for minority children to have poor academic performance in comparison to the students from mainstream culture as explained by post-modernism and multicultural education theories (Dhungana, 2020).

#### **Dimensions of CDRE**

By critiquing and synthesizing various kinds of literature including Vygotsky's sociocultural theory, pedagogy of the oppressed, multicultural education, post-modernism, culturally responsive pedagogy, the dimensions of CDRE are identified as CDRC, CDRI, R&I and CDRA (Vygotsky, 1930; Freire, 2005; Bank & Bank, 2010; Ozmon, 2012; Gay, 2013; Mayo, 2013; Roberts, 2014; Krasnoff, 2016; Dhungana, 2020). Figure 1 presents the dimensions of CDRE in the context of a culturally diverse society as it is concluded in the study.

Figure 1 Dimensions of Cultural Diversity Responsive Education (CDRE)



#### Conclusion

CDRE needs to ensure the participation of every student in the classroom regardless of their culture, class, caste, gender, religion, color, nationality, and other orientation, so that they are truly engaged for effective classroom learning. It is the reformation of particular social class-based or mainstream or teachers' culture-based instruction into a mass-based or all-students of the classroom-suited instruction. CDRE is likely to be translated by developing CDRC, translating current instructional practices into CDRI, translating teachers competent for Research & Instruction (R&I), and translating student evaluation as CDRA.

As post-modernism, multicultural education, CRP advocated CDRE which is required to be a passage for every student from which he/she transforms himself/herself into an empowered and emancipated personality (Bank & Bank,

2010; Ozmon, 2012; Gay, 2013). The passage of every student is supposed to be cultural diversity-responsive education which is likely to result in social reconstruction together with social emancipation and empowerment. From the perspective of pedagogy of the oppressed and post-modernism, it is claimed that preparing students merely as docile listeners without developing their critical consciousness is actually a waste of time for them. Changing the pattern of narration-based education into problem posed education by activating students can lead teaching towards CDRI which leads towards effective CDRE practice.

The dimensions of CDRE are CDRC, CDRI, R&I, and CDRA. A single dimension of CDRE cannot be effective. CDRC can provide a way for CDRI so that each culture-related student can be engaged in classroom learning. However, CDRI practices become successful only when there are teachers who can carry out R&I and have a repertoire of CDRI competencies.

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