

Using Differentiated Instruction in Inclusive Schools: A Qualitative Analysis of Prospective Teachers' Self-Efficacy

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Abstract

This qualitative study explored prospective teachers' self-efficacy beliefs regarding using differentiated instruction in inclusive schools. The sample of the study was 16 prospective teachers attending a prestigious private university in Lahore and learning how to teach students with diverse needs in inclusive schools. The prospective teachers voluntarily agreed to participate. With the help of a theoretical framework on differentiated instruction, an interview guide was designed, and a semi-structured interview was conducted with each participant individually for an in-depth exploration of teacher's self-efficacy beliefs regarding different themes of instruction differentiation. All interviews were audio-recorded and later transcribed. Data were analyzed using the template analysis method. Findings revealed that most of the prospective teachers were confident in differentiating instruction for diversity. They believed that they would be able to modify five curriculum-related elements, that is, content, process, product, affect, and learning environment concerning the students' readiness, interest, and learning profile. However, some of the prospective-teachers indicated a need to increase the self-efficacy of prospective teachers concerning the ability to modify four curriculum-related elements in order to address diversity in inclusive classrooms. Extra attention and interventions need to be directed to enhance all prospective teachers' self-efficacy beliefs regarding differentiated instruction in inclusive schools.

Keywords: qualitative analysis; differentiated instructions; inclusive schools; teachers' self-efficacy beliefs.

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Introduction

There is a growing trend in Pakistan that a significant number of students with disabilities are attending general schools (Ashraf, Bashir, & Fatima, 2020; Gul, 2020). Institutional structures in schools are now committed to increasing the plan of inclusion, and most educational organizations are working to fulfill the learning needs of students with a wide range of skills, from giftedness to intellectual disability (Graham, 2020). These students come from diverse families and socio-economic backgrounds, having diverse life experiences, diverse social roots, diverse academic skills, and in numerous cases, diverse linguistic preferences (Tauheed & Nasir, 2020). The actual inclusive education is related to something in which all schools have a desire or hope in order to adjust the different qualities that continuously exists inside the student population (Graham, 2020; Kamenopoulou, 2018).

Inclusive education demands all individuals with a variety of diversity in their physical, mental, and sensorial abilities to study in one place (Kamenopoulou, 2018; Mastropieri & Scruggs, 2017). They all have multiple abilities and disabilities but study in the same classroom with the same teacher having the same curriculum regardless of their weaknesses and strengths (Azeem, 2019). In this scenario, all teachers and staff have a responsibility to fulfill their needs and provide fruitful education (Moon, Brighton, & Tomlinson, 2020; Tomlinson, 2014). Inclusive setup is based on one class containing one curriculum for all students and differentiating the content according to their readiness, learning profile, and interest (Chennat, 2020; Tomlinson & Imbeau, 2010). In addition, it fulfills the diverse needs of students and not changing the student to fit their needs (Chennat, 2020).

Teachers' knowledge, skills, and beliefs towards inclusion play an important role in determining the quality of experiences for students with disabilities in classrooms (Fives & Gill, 2015; Kiely, Brownell, Lauterbach, & Benedict, 2015). However, teachers may embrace different beliefs about students with disabilities and how to support their inclusion. Individual teacher's beliefs are important in determining learning experiences for students with disabilities (Kiely et al., 2015; Tmkaya & Miller, 2020). It is

important to understand teachers' beliefs because of their centrality in influencing how teachers implement inclusive classroom processes to support students with disabilities (Azeem, 2019). However, it is a challenging task to study teachers' beliefs because they are complex (Kiely et al., 2015; Olafson, Grandy, & Owens, 2015).

An interesting approach to inclusion is differentiated instruction (Tomlinson, 2014; Tomlinson et al., 2003). It is "a systematic approach to planning curriculum and instruction for academically diverse learners. It is a way of thinking about the classroom with the dual goals of honoring each student's learning needs and maximizing each student's learning capacity" (Tomlinson & Strickland, 2005). Differentiated instruction demands modification of teaching and learning processes to suit all students in the classroom, offering knowledge and academic skills that fulfill all their needs, making it possible for them to achieve academic success.

Although mostly used in Western education systems, differentiated instruction is becoming a worldwide phenomenon. However, it is a new approach to teaching in Pakistan and in other developing countries. In Pakistan, a number of educational institutions have started practicing differentiated instruction in order to meet the specific needs of students regarding their limitations and abilities. Especially in special education, schools, and centers, practices of differentiated instructions are so important because individuals with special needs have diversity in their abilities and background educational experiences. However, not all teachers and schools use differentiated instructions in their classes because of various reasons, for example, lack of differentiated instruction knowledge, time constraints, class size, school administration/facilities, lack of resources, students, lack of teaching methodology knowledge, curriculum, personal characteristics, personal teaching beliefs/styles, nature of differentiated instruction and (Lavania & Nor, 2020) and teachers' self-efficacy (Alnahdi, 2020; Shareefa, 2020). With the exception of few studies (e.g., Aftab, 2015; Butt & Kausar, 2010; Iqbal, Khan, & Nisar, 2020), differentiated instruction in the Pakistani context is an under-researched area, especially in relation to inclusive classroom. As a result, this study is conducted to explore

teachers' self-efficacy beliefs regarding differentiated instruction in the inclusive classroom.

Differentiated Instruction

This study used the theoretical model of differentiated instruction as proposed by Tomlinson and Imbeau (2010), which specify that teachers promote inclusiveness and equity by using five differentiation methods: content, process, product, and environment while instruction is centered on students' learning profile, readiness levels, and interests. Teachers vary the requirements for all individuals in classrooms, which offers knowledge and academic skills that fulfill all their needs and make it possible to achieve success keeping in view their strengths and limitations (Moon et al., 2020; Tomlinson, 2014).

There are many ways for teachers to make content attractive and meaningful for students by changing their teaching practice, for example, lecture, drill, discussion method, and demonstration method (Gheysens, Coubergs, Griful-Freixenet, Engels, & Struyven, 2020; Shareefa, 2020). Flexible groups like individual reading, partner reading, communication with exports, online research, text with images, etc. (Tomlinson & Imbeau, 2010).

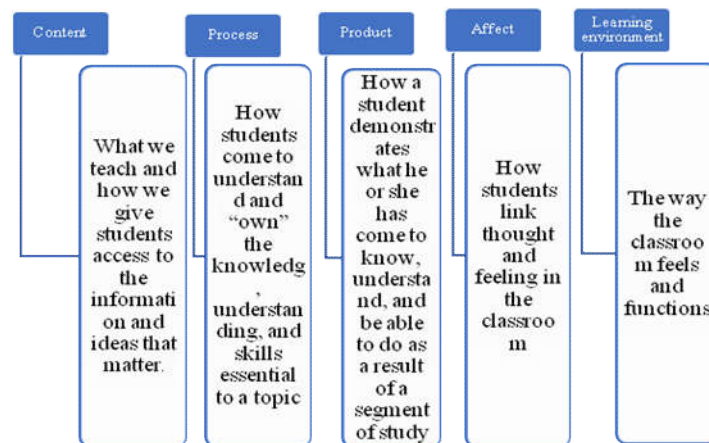


Figure 1: Five classroom elements of differentiated instruction (Tomlinson & Strickland, 2005).

Some students are stuck in content, and they go back to prerequisite content for getting better knowledge of the topic. It's really important for the teacher to get ready Individual Educational Plan for every student before creating their lesson plans, and content difficulty either slightly difficult for gifted students or slightly easy for average learners (Tomlinson & McTighe, 2006). In the process, the teacher focuses on the idea of how learners find understanding and make sense of the content delivered. In addition, teachers emphasize activities that grapple with learner's interests, and they understand the main idea of the content. The process is known as activities that can cope with learner's interests, which help them own the content and make sense of usefulness in the context outside the classroom (Moon et al., 2020; Tomlinson, 2014). Whereas product means learners illustrate what they know and recognize after a prolonged period, by taking that test, which presents problem-solving methods and complex topics to discourse in acquiring an understanding of significant concepts, transmission of knowledge, or application of abilities that help students to solve and face real-life problems (Tomlinson, 2014; Tomlinson et al., 2003). Affect or environment measures the impact of emotions on students learning. Academic growth is based on previous academic learning experiences when students have an encouraging impact on learning. Student's success is based on their past positive learning experiences export teachers observe students' behavior and work to understand the environment that drives behavior that can guide learners in a positive path of learning (Tomlinson & Strickland, 2005).

It is alleged that the basic limitation of implementing differentiated instruction in the Pakistani context is the lack of teachers' training. Teachers' self-efficacy beliefs are basic key terms to run the differentiated instructions in any classroom. In addition, there is no specific policy related to differentiated instruction in Pakistan (Ehsan, 2018; Gul, 2020), and teachers do not take it as compulsory (Butt & Kausar, 2010). Teachers are not able to adapt the variations of making the lesson more effective; for example, teachers often underscore their inability to use material and resources (finance, time, human and audio-video aids) for improving their content for individual students (Aftab, 2015; Azeem, 2019; Butt & Kausar, 2010).

Differentiated instruction is essential for schools in inclusive classrooms in Pakistan because this setup includes individuals with disabilities in multiple ways. All students do not follow the same curriculum with the same process or environment in the same effect and do not give the same feedback or product. Differentiated instruction helps to increase students' understanding and knowledge along with improving the skills and linked with directions that help to achieve professional success. Students can be different from their background experiences, culture, gender, learning profiles, readiness level, interests, and support system. In short, different strategies are used for changing or modifying the curriculum and instruction using the differentiating principles based on a student's learning profile, readiness level, and interest (Strogilos, Avramidis, Voulagka, & Tragoulia, 2020; Tomlinson & McTighe, 2006).

Self-Efficacy Beliefs

As mentioned earlier, teachers' beliefs play a significant role in teaching and learning in inclusive classrooms (Azeem, 2019; Skott, 2015). In particular, two components of beliefs play a critical role in teaching and learning. First, teachers' beliefs influence how they perceive different aspects of teaching and learning because beliefs filter some complexity of a situation and make it comprehensible, shape an individual's interpretations of events (Fives, Lcatena, & Gerard, 2015). Second, beliefs can also be considered as dispositions toward action; therefore, teachers' beliefs have a motivational force (Buehl & Beck, 2015; Männikkö & Husu, 2020). Especially in challenging situations, beliefs compel the teachers to act in particular ways.

In addition, self-efficacy beliefs, a dynamic personal factor in mediating relationships between knowledge and behaviors, are crucial to teacher agency or his or her ability to act. Bandura (1997) defined self-efficacy as "beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments" (p. 3). Teacher self-efficacy beliefs are defined as "teachers' individual beliefs about their own abilities to successfully perform specific teaching and learning-related tasks

within the context of their own classrooms” (Dellinger, Bobbett, Olivier, & Ellett, 2008, p. 752). Self-efficacy builds confidence to take initiatives on their own; though there are difficulties in their way, which may hinder their pace, they carry on. Self-efficacy beliefs reflect confidence in their own skill to try hard to control once their own behavior, motivation, and social atmosphere (Hajovsky, Chesnut, & Jensen, 2020). Self-efficacy beliefs have four dimensions, such as verbal persuasion, mastery experiences, the emotional and psychological state, secondary/sympathetic experiences (Bandura, 1997).

In Pakistan, private special education schools are increasingly adopting differentiated instruction according to the difficulty level of students learning, but it also very important for regular schools and gifted students as well. In addition, various teacher education institutions in Pakistan are incorporating differentiated instruction in their curricula, especially in the curricula of special education programs, in order to prepare teachers who, have knowledge, skills, and attitudes to effectively manage and address the needs of inclusive classrooms. This study is designed to explore this phenomenon of prospective teacher’s self-efficacy beliefs regarding differentiated instruction in inclusive classrooms in Lahore.

More specifically, the aim of this study was to explore the prospective teachers’ self-efficacy beliefs regarding differentiated instruction in inclusive schools in Lahore. This purpose was divided into the objectives with respect to five elements of a classroom for differentiated instruction, that is, content, process, product, affect, and learning environment.

Methods and Material

A qualitative exploratory approach using semi-structured interviews with open-ended questions was chosen to arrive at an understanding of the prospective teachers’ self-efficacy beliefs regarding differentiated instruction. A qualitative research design was chosen since the nature of the study was exploratory, and the phenomenon of interest was abstract in nature. Semi-structured interviews were chosen as our major research method because this

type of interviewing is considered useful in gaining an understanding of participants' beliefs about a specific topic using interactive conversation (Berner-Rodoreda et al., 2020). The authors' background knowledge and a review of the relevant literature helped the authors to develop a thematically organized interview guide (Brinkmann & Kvale, 2018), which was later used for the collection of data from the students.

Participants and Procedure of the Study

The researchers selected the participants through a purposive sampling technique for this study. It is a non-probability sampling technique, which depends on the judgment of the researcher in the selection of participants, and this type of sampling can be particularly useful in circumstances when there is a need to grasp a targeted sample space, and where sampling for proportionality is not the key concern (Patton, 2015). Purposive sampling is mainly used in qualitative research.

Moreover, qualitative researchers mostly select a small sample size than quantitative research because they are going to study the concepts in detail that requires a lot of time, and its complexity increases by increasing the sample size; therefore, a small sample size makes the research economical in limited resources (Brinkmann & Kvale, 2018; Seidman, 2019). Sixteen prospective teachers were selected for this study. These participants were enrolled in an MPhil Special Education program, and they had recently completed a course focusing on Differentiated Instruction. The researcher used criteria to decide whether a participant was eligible to take part in this research. It was ensured that the participant: was a student of the MPhil Special Education program; he had attended a course focusing on Differentiated Instruction; volunteered to be interviewed, and he or she agreed to respond to the follow-up interview if required.

Table 2
Demographic information of the participants

Participant	Gender	Age	Professional Qualification	Previous Experience	School
1	Female	25	MA Special Education	1 year	Private
2	Female	24	BEd Education	4 years	Private
3	Female	28	MA Special Education	4 years	Public
4	Female	25	MA Special Education	1 year	Private
5	Male	30	MA Special Education	0.5 year	Private
6	Male	30	MA Special Education	4 years	Public
7	Female	25	MA Special Education	2.5 years	Private
8	Female	38	MA Special Education	18 years	Public
9	Female	26	MA Special Education	4 years	Private
10	Male	29	MEd in Special education	0.5 year	Private
11	Female	26	MA Special Education	2 years	Private
12	Female	26	MA Special Education	3 years	Private
13	Female	28	MA Special Education	4 years	Public
14	Female	29	MA Special Education	2.5 years	Public
15	Female	26	MA Special Education /SLT	1 year	Private
16	Female	29	MEd in Special education	2 years	Public

Data Collection Methods

For data collection, the researcher contacted the prospective teachers through email to invite them to take part in the study. In the email, the researcher mentioned the purpose of the study, the data collection method, and the expected outcomes of the study. In addition, participants were informed that they had a choice to leave

the research study at any time without any negative consequences. After this, the participants were inquired to choose a suitable time and location where the interview took place. The first author (TI) conducted two interviews face to face, but she conducted the rest of the interviews via phone calls with recording because of COVID-19 and lockdown. In addition, the interview notes were taken whenever it was deemed necessary. The first author transcribed all the interviews, and all the transcripts were rechecked by the second author in order to ensure accuracy. All interview recordings were transcribed and translated into the English language. All data were recorded in audio form, and after listening to it repeatedly, the researcher transcribed it in text form.

The data collection method used in this study was semi-structured interviews. Interviews were conducted with each of the sixteen participants. Semi-structured interviews were almost unstructured in which some questions were asked from the interview guide while some were asked from the participants on the spot (Berner-Rodoreda et al., 2020; Lune & Berg, 2017). The interviews followed a general to a specific pattern. The interview started with demographic questions related to their age, experience, etc. At first, the researcher asked non-threatening and straightforward questions to build rapport. Gradually, the research moved from important to sensitive and then validating questions. Initially, questions were aimed at seeking to identify how teachers define characteristics of differentiated instruction. Then questions turned to prospective teachers' beliefs to incorporate differentiated instruction practices in day to day teaching. Furthermore, the researcher allowed the participants to share their incidents in relation to differentiated instruction. The researcher asked probing questions to reach the depth of the topic, but not consistently, which may irritate the participants. Some of the semi-structured interviews consisted of one hour, and a few were half-hour long. An audio recorder was used with the permission of the interviewee.

Interview guide

The instrument of the study used for semi-structured interviews, an interview guide, was based on the literature review themes (Flick, 2017). A number of possible questions for the interview guide were developed based on the areas identified in the literature (Foddy, 2001; Kvale, 1996; Legard, Keegan, & Ward, 2003). More specifically, this study used a theoretical framework on differentiated instruction (Tomlinson & Imbeau, 2010) to explore prospective teachers' self-efficacy beliefs regarding differentiated instruction in an inclusive setup.

The initial draft of the interview guide was discussed in several meetings between the authors before the interview guide's questions were finalized (Creswell, 2012). A few questions were less clear for the qualitative research interview guide. Therefore, the language of these questions was amended to increase the clarity of questions. In addition, interview questions were rearranged so that the sequence could be made logical. The interview guide was further improved by piloting it with a critical friend. Because of this piloting, the interview guide was further revised, and the language of some questions was amended.

Data analysis

The interview data were analyzed using Template Analysis, “a style of thematic analysis that balances a relatively high degree of structure in the process of analyzing textual data with the flexibility to adapt it to the needs of a particular study” (King, 2012, p. 426). After interview data collection, the most important step within research is data analysis, which is used by the researcher to identify and explain the depth of the subjective data by creating themes (Roulston, 2014). Template analysis is particularly useful in interview data analysis, and it is compatible with a phenomenological study assuming an epistemological position that any phenomenon can always be interpreted in multiple ways (Brooks, McCluskey, Turley, & King, 2015). In addition, the aim of the study was to explicate the existing conceptual framework of differentiated instruction with empirical

evidence from interview data. The flexibility of Template Analysis made it possible to combine the elements of the confirmatory using the conceptual framework in this way with the exploratory nature of the questions in the current investigation (King & Brooks, 2017).

Template Analysis is comprised of six steps to generate knowledge from interview data (Brooks & King, 2014). After transcription, all interviews, the first researcher read and re-read through the full data set more than one time for familiarization and better understanding (Saldaña, 2013). In addition, she also listened to the audio recording and took important notes. In the second step, preliminary coding of the data was done by highlighting, circling, and underlining anything in the interview data which seemed relevant and potentially contributing to the understanding of the research questions (Miles, Huberman, & Saldaña, 2020). This preliminary coding was based on a priori themes identified in advance of coding from the literature on differentiated instruction. More specifically, the theoretical model proposed by Tomlinson and Imbeau (2010) was used to thematically organize the interview guide and subsequently apply to preliminary code the interview data. A priori themes were used tentatively—as some of them were re-defined or removed as they were found to be irrelevant or inappropriate at a later stage. However, the use of priori themes was “useful in accelerating the initial coding phase of analysis, which can often be rather time-consuming” (Brooks & King, 2014). In the third step, an initial coding template—representing the relationship between different themes—was defined after identifying themes in a subset of the interview data. It was ensured that the initial coding template was based on a data set comprising of varied accounts capturing the prospective teachers’ beliefs presented in the data overall. In the fourth step, the initial template was applied to the remaining data. When existing themes did not readily “fit” the new data, the template was modified by redefining existing themes or inserting new themes to incorporate and capture the meaning of new data (Brooks & King, 2014). In the fifth step, a re-iterative process of coding and revisions was used, and as a result, several revisions were made to produce a final version of the template. In the last step, the final template was applied to all the interview transcripts (King & Brooks, 2017). This final version

of the template facilitated the interpretation of transcripts and provided a structure to present research findings in a meaningful way.

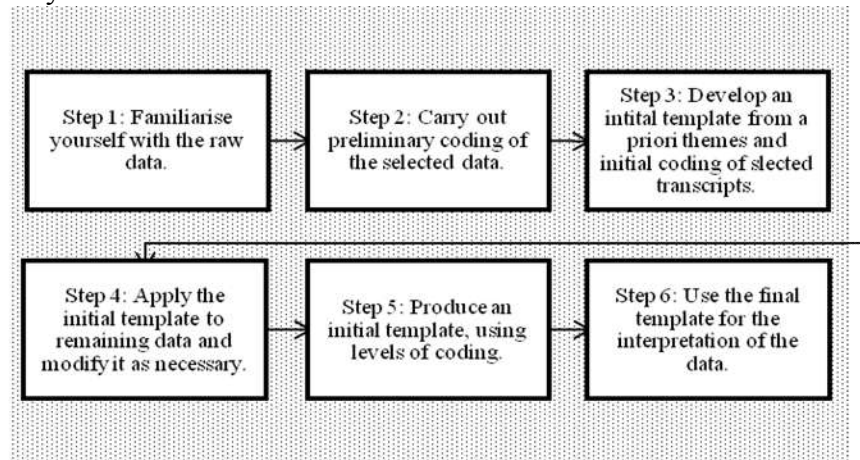


Figure 2: Steps in Template Analysis as used for the Analysis of Interview Data.

Findings

Self-efficacy beliefs regarding content differentiation

Prospective teachers' self-efficacy beliefs regarding content differentiation were identified. Most participants believed that they would be able to ensure the curriculum must be based on major concepts because it is beneficial for students in academic growth and deep understanding to understand any concept. In addition, they believed that they would not cut down the curriculum; they would choose concept-based content and make it easy for special needs students. Some participants reported that they would not be able to ensure it because they thought that a pre-planned curriculum from the government did not permit them to changes in the content, but they would try to make the curriculum more interesting and meaningful according to the interest, abilities and readiness level of the students. For example, a participant stated: "I will be able to ensure the curriculum is based on major concepts rather than generalizations, but there is a difficult task to choose major concepts from already decided curriculum according to students' needs" (Participant 12).

Most participants believed that they would be able to articulate clearly, and they would try to know their students very well, their backgrounds, their experiences, and their disabilities. They would use such languages, which would be understandable to students. For example, a participant stated:

Yes, I believe that I will be able to clearly articulate. It is based on personal brought up and experience. I know four languages (Urdu, English, Punjabi, and sign language), so I can easily articulate my ideas, and they understand me. (Participant 15)

Some participants reported that they did not have much experience with inclusive setups, so they would sometimes feel difficulty in conveying their thoughts through sign language. Participants argued that if their students achieved in final exams and performed well in-class activities, then they would be able to confidently say that they would clearly articulate with their students.

All participants reported that they would be able to use a variety of materials in inclusive classrooms because the use of audio-visual aids makes the instruction more effective, attractive, and impactful for students learning, catering to the needs of each individual's unique learning style, ability, and interest. They argued that students liked to learn with materials and demonstration methods, activities informed by learning by doing; therefore, a variety of materials is a critical element for differentiating content. Participants stated that they would be able to use required materials for teaching their topic and lesson along with standard textbooks, helping books, and guidebooks because to enhance students' understanding of the concepts. They believed that they would be able to use charts and text graphics, but all participants appreciated using every kind of material like video, audiotapes, models, animal decoration pieces and real-life objects, etc., for enhancing students' learning achievement. For example, a participant stated:

I believe I will be able to use a variety of materials. I will use my personal cell phone and other school resources. I will also

consult the Oxford online library for their better understanding and learning of students. (Participant 9)

Providing helping books or study guides and making groups according to students' needs, interests, and comfort level were considered easy tasks by most participants. They were confident to give a chance to the students to choose their peers for learning while teachers are observing the students. They asserted that students are more comfortable with their peers; they show their weakness easily in front of their friends, so they would allow learning in groups. However, some teachers argued that since students forget learning and start irrelevant activities like playing with each other, sighting, making noise, etc., they would prefer to let students learn and work individually and only allow them to work learning and playing in groups when students perform extracurricular activities.

Self-efficacy beliefs regarding process differentiation

All participants underscored that they would be able to teach every student according to their interests and abilities because if students are not ready to learn, instruction becomes a lengthy and tiring process, wasting a teacher's time and energy. They emphasized that the teacher must know how to differentiate their teaching process, including differentiation of time management, classroom environment, teaching methodology, and assessment procedures according to learner's interests, needs, readiness level, and abilities.

I will be able to ensure that the pace of instruction varies based on individual learner needs because it helps individuals to achieve their goals and good results. The instructional method must be changed in week at least three types so that students do not feel bore from the lesson. (Participant 11)

All participants felt confident in varying the instruction according to the student's disability, IQ level, learning ability, mood, interest, and understanding level. Participants believed that providing instructions according to an individual learner's gives

good results and builds students' interest in their studies, and teachers also make a good relationship between students and teachers.

Most participants also believed that they would be able to use learner preference groups based on student's interests, abilities, and readiness levels. They argued that students learn more with their peers in class and sometimes feel shy in telling teachers their personal and learning problems. In addition, they considered it beneficial to create learner preference groups for the development of students' moral and social values, taking care of each other, giving respect to each group member's work, and learning different skills from each other. Some participants believed that they would use learning preference centers in class only when they did not have a wide classroom for making different groups. In addition, they reported that if they had many students and some students are very naughty, they would prefer to use learning preference centers.

I believe I will be able to use learner preference groups because students learn more with their peers in class. Sometimes, they may show shy behavior with the teacher. But they can share more knowledge with their friends. (Participant 3)

When the researcher asked about creating a structured classroom environment that supports students in learning, understanding, and defining new ways of learning intellectually, most of the participants said that if students asked them to do any science project in a group, they would allow them to do, but if students asked for permission about painting artwork in groups, they would never give permission. They emphasized that each student has a unique ability to paint and draw something differently because they think differently; they prefer to work alone while drawing or any artwork.

One participant stated that his classroom would be fully controlled and organized, and group work would also be encouraged along with individual efforts. The participant underscored the benefits of the structured classroom environment in terms of students' academic growth.

Self-efficacy beliefs regarding product differentiation

Most participants were confident that they would be able to check students' understanding in multiple ways like pre-assessment, formative assessment, and summative assessment using different techniques, for example, solving worksheets, short and long answer questions—written and oral, objective as well as subjective types. The researcher further asked participants about providing multiple modes of expression to their students in the final product; participants replied that they would be able to provide it because there are different types of learners, and assessment should be based on their individual learning styles. On the other hand, some participants stated that they would not be able to provide multiple modes of expression in the final product because of the usual lack of resources in schools and because of the fear that the administration would not allow these strategies. For example, one participant stated: “I believe I will not be able to do the multiple modes of expression because we do not have access, material, and time to provide multiple moods of expression individually” (Participant 15). In addition, another stated: “No, I believe I will not be able to do the multiple modes of expression because the class teacher did not have much authority to change anything in the final product or exams, etc.” (Participant 12).

Most of the participants believed that they would be able to decide and plan their lessons according to student interests, needs, and abilities and that the product aligned with the student interest. For example, a participant stated:

I believe I will be able to provide a variety of assessment tasks because the same method of teaching or assessment is boring, so for making the learning process interesting and joyful, it is important to use a variety of assessment tasks like worksheets, short answer question, etc. (Participant 9)

Self-efficacy beliefs regarding affect/learning environment differentiation

Most of the participants believed that they would be able to measure the interest of diverse learners regarding learning and

other activities, for example, grouping, playing, and performing. Participants reported that they would be able to modify their teaching strategies according to the student's interest and readiness level, IQ level, developmental age, and ability. They said they would assign duties according to student interest in any activity and allow learners to choose their roles and their favorite poems and plays. For example, one participant stated: "I believe that I would be able to assess their learning styles by making the learning profile and interests inventories using Gardner's multiple intelligence theory" (Participant 5).

Most participants reported that they would create individual culture because it is so important for their learning, especially for diverse needs learners with some limitations. They were of the view that teachers must modify their teaching instructions and classroom culture where all learners connect socially, emotionally, and physically in activities, science projects, video lessons, and drama art clubs. One participant said that she would create classroom culture every week by designing message themes and display an in-class activity wall with a message like helping others, etc. On the other hand, some of the participants expressed their lack of confidence in creating individual student culture because of the fear of a large number of students and the small size of classrooms. They believed that traditional teaching methodology and focus on covering the whole syllabus would not allow them to create an individual culture in classrooms.

Furthermore, the researchers explored the prospective teacher's self-efficacy beliefs about how to deal with an individual's real-life situations. Most of the participants described their self-efficacy beliefs regarding this. They were of the view that it was important to know each student's background experiences and their impacts on student's learning processes. They further revealed their belief that the learning process is hindered if the learner is under psychological strain, and being teachers, they should try their best to reduce that impact. Some of the participants stated that they would not be able to deal because, in traditional school systems, students are not much personally involved, and teachers have a busy teaching schedule they must follow.

When the researcher asked about awareness of their students learning disabilities in a lesson, most participants reported that they

could assess their student's weaknesses and strengths of their students learning disabilities in a lesson by spending much time with students and by assessing their works and results. Most of the participants showed their confidence in identifying student's learning disabilities by using a supporting team, including psychologists, doctors, and therapists, that help students to lower the learning problems of such students.

Discussion

In Pakistan and worldwide, numerous research studies have been conducted regarding differentiated instruction and inclusive practices because of its essential need for the education system (Aftab, 2015; Butt & Kausar, 2010; Ismail, 2019). Most of the researches showed that using differentiated instruction for diverse students' needs is a beneficial, helpful, and important step (Salend, 2015). The problem is the practice of differentiated instruction presented in different studies, as examined in different countries. These studies not only provide specific knowledge about this issue in the education system but also mentions differences and possible motives behind this phenomenon all over the countries.

The aim of this qualitative study was to explore the self-efficacy beliefs of prospective teachers regarding differentiated instructions in inclusive classrooms. The researchers chose this topic and study to conduct in Pakistan because other researchers conducted in the Pakistani context are quantitative researches, which do not provide rich data about this topic. The current research is qualitative in nature and provides rich data to explain details about prospective teachers' self-efficacy beliefs regarding differentiated instructions.

Self-efficacy beliefs are very important for achieving success in any goal, and the researcher explored this in this study to know prospective teachers' beliefs regarding differentiated instructions. Secondly, other research studies which conducted in Pakistan were conducted in primary level, and college levels experienced teachers' practices, and results show that teachers appreciate the differentiated instructions and they want to build the inclusive setup for special need students and improve their teaching

practices related to differentiated instructions. However, in this research, we explored the self-efficacy beliefs of prospective teachers who had studied a differentiated instruction course in their M.Phil. Special Education program. The results of this study show that most of the prospective teachers believed that they would be able to use differentiation to extend their students' understanding and learning. This research is a small effort for those special and diverse need students to give their rights to them and make them equal to normal students.

Conclusions

The findings of the research highlighted the self-efficacy beliefs regarding content differentiation in inclusive schools. It is identified the curriculum is based on major concepts and generalization for students learning; prospective teachers believed that they would be able to articulate clearly what they want to say to their students and students get an understanding of the teacher is saying, using a variety of materials other than standard text for making teaching instructions effective and provide support strategies (organizers, study guides, study buddies). Findings highlight the issue that if prospective teachers are not confident in differentiating instruction for diversity, it will be difficult for them to foster an awareness and application of differentiated instruction in actual inclusive classrooms. This study underscores the pressing need for special teacher education programs in Pakistan to provide prospective teachers with opportunities and requirements for developing both an intellectual understanding of differentiating instruction and the demonstration of differentiating instruction skills in the actual inclusive classrooms.

Recommendations for policy and practice

- I. Most of the prospective teachers had positive beliefs regarding their abilities to meet the challenges ahead of them regarding differentiated instructions for students' interest, assessment, lesson planning, content, process, and product, and they believed that they would be able to complete tasks related to

these dimensions successfully. However, some prospective teachers had negative self-efficacy beliefs. Therefore, there is a need to address the course curriculum. It should be revised to incorporate content and activities to develop prospective teachers' knowledge, skills, and positive attitudes towards differentiated instruction practices.

- II. The prospective teachers should be given the opportunity to practice in inclusive schools the various strategies they learned in the course of their differentiated instruction so that they could practically implement these strategies. Providing prospective teachers with an experience that permits them to successfully implement differentiated instruction in inclusive classrooms will enhance their self-efficacy beliefs further.
- III. In the future, the department's administration may ensure that prospective teachers have practical experiences in relation to differentiated instruction in inclusive classrooms. Strengthening prospective teachers' self-efficacy beliefs about teaching in inclusive classrooms is important in order to support students with disabilities further and in order to make their learning processes more enjoyable.

Suggestions for future research

The data was collected from prospective teachers who had studied only one course related to differentiated instructions, and it suggested that the data should be collected from the other stakeholders like parents, students, and teachers.

- I. This research collected most of the interviews through phone calls because of COVID-19 and Lockdown. In a future study, researchers may observe differentiated instructional practices of the participants for getting in-depth information.
- II. This study interviewed only 16 participants from inclusive schools in Lahore, who were chosen through a purposive sampling technique since the aim was to study a few individuals in detail. Therefore, the results of the study could not be generalized to a larger population. It is recommended that future research using a survey research design should be conducted with a larger sample size.

III. Nonetheless, as this present study is a reflection of prospective teacher's self-efficacy beliefs in inclusive schools, it is recommended to explore more data through a conducted study from different contexts. In this study, the research explored self-efficacy beliefs of prospective teachers regarding differentiated instruction, for students' interest, assessment, lesson planning, content, process, and product as a theme, but it is strongly recommended that a separate study should be conducted that explore in-service teachers' practices related to differentiated instructions using ethnographic observations as a main data collection method.

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