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Preservice Teachers' Beliefs and Practices of Educational Diversity in the Sultanate of Oman

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# Preservice Teachers' Beliefs and Practices of **Educational Diversity in the Sultanate of Oman**

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Abstract: Although there are many studies on diversity in education, the beliefs and expectation of preservice teachers towards diversity are sometimes neglected in Omani higher education, which typically give minimal attention to issues of diversity or to reflective discourse in their coursework. This study examines preservice teachers' beliefs about diversity as key aspect in improving educational practices. The quantitative-descriptive study was carried out with 319 preservice teachers enrolled in the college of education at Sultan Qaboos University (SQU), Oman. . The results show that preservice teachers ranked diversification of teaching methods as their strongest belief around teaching learners from diverse backgrounds. The analysis revealed a significant relationship between diversity and the two variables of nationality and age. One of the most significant findings from the one-way analysis of variance was that their opinions regarding diversity did not differ according to the gender of pre-service teachers. The discussion focused on the importance of preparing preservice teachers for dealing with diverse students in institutions of higher education.

Keywords: Instructor Preparation, Oman, Effective Training, Multiculturalism, Higher Education, Training Program, Inclusion

## Introduction

ue to the continued globalization and diversification of most societies, circumstances in which individuals are confronted with unfamiliar cultures are expanding (Genkova and Schreiber 2021). The growth of the global economy and new patterns of global migration have created an urgent need for discourse around diversity in various spheres of professional life, including education (Yeolekar 2020). According to Burner, Nodeland, and Aamaas (2018), increased globalization and mobility have caused attention to the importance of diversity in different settings of education, since greater diversity generates novel opportunities for societal progress, economic productivity, and innovation (Genkova and Schreiber 2021). In fact, diversity has been investigated in many educational settings and is a subject of growing popularity among scholars (Valentiin 2006; Varela, Portela Pino, and Rodriguez 2020; Sunthonkanokpong and Murphy 2020); indeed, many colleges and universities have developed affirmative action programs to recruit students and staff from diverse backgrounds (Ashton 2009).

Mule (2010) stated that there has been "a more comprehensive development in higher education that focuses on deeper relationship with local communities" (9). This increased concentration on reorienting teacher education, community involvement, and multiculturalism in educating teachers, including how these factors integrate with one another, is seen in the literature (Yuan 2017; Villegas and Davis 2008; Irvine 2003). These scholarships support a framework of college and university teachers who are equipped for the task of teaching students from diverse cultural and economic backgrounds. However, the studies also suggest that the call for teachers to be prepared for diversity is fueled by concerns about the quality of teacher

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preparation and the need to address the issues that teachers encounter (Yuan 2017). Hence, continued education around diversity is important for preservice teachers in order to address the growing cultural and ethnic divide between the teachers and students (Banks et al. 2005).

Diversity has been a focus of higher education policy, laws, and scholarship for decades, with the scope of discussion around diversity continually expanding to include not only race, ethnicity, and gender but also socioeconomic status and sexual and political orientation, among other things (Stulberg and Weinberg 2012). According to Smith (2020), diversity is a powerful agent of change and must be placed at the center of higher education. Indeed, diversity is an imperative that must be embraced if colleges and universities are to be successful in a pluralistic and interconnected world. However, discussions about diversity in education are filled with contradictions and paradoxes (Smith and Schonfeld 2000). Changes related to cultural and ethnic diversity are especially likely to cause perceived insecurity or stress in a dynamic social environment such as the workplace or the university (Genkova and Schreiber 2021). This is strongly related to a lack of intercultural competency as well as a negative attitude toward cultural diversity (Van der Zee and Van Oudenhoven 2013). For this reason, teacher educators should prepare preservice teachers for diverse classrooms as well as for an increasingly competitive job market by providing the necessary skills and background to effectively educate diverse populations of students (Miller and Mikulec 2014). The educational changes that started in the early 1980s in the United States emphasize the need for instructors to develop their beliefs, abilities, and knowledge in order to effectively deal with students who are socioeconomically, racially, linguistically, and ethnically diverse (Banks 2014). The diversity standard of the National Council for Accreditation of Teacher Education has made it a requirement for teacher education programs to include multicultural education principles and improve preservice teachers' professional competency when teaching students with diverse backgrounds, such as gender, culture, religion, and ethnicity, and also those with exceptionalities (Arsal 2015).

As schools move toward multiculturalism, teachers are expected to pay special attention to recognizing intercultural differences and competencies in order to positively impact students' personal and academic development (Jokikokko 2005). Smith (2020) contends that the competitiveness of colleges and universities in a rapidly changing global environment depends on the proficiency of teachers in handling diversity in the classroom. The consideration of teachers' perceptions, beliefs, and attitudes toward diversity seems to be an important component in teacher training for specific educational contexts (Hinojosa Pareja and Lopez Lopez 2018; Martínez et al. 2020) because teachers play a key role in helping to stabilize and improve the quality of social life (Sunthonkanokpong and Murphy 2020). In this respect, a number of studies have criticized the lack of teachers' commitment to cultural diversity and the opposition to promoting more inclusive training techniques associated with an intercultural approach (Hinojosa Pareja and Lopez Lopez 2018). Therefore, in order to effectively prepare preservice teachers for the increasingly varied classroom, greater research into the role cultural diversity awareness plays in educating different pupils is necessary. However, there is still much work to be done (Russell and Russell 2014).

Preparing preservice teachers for cultural diversity is a problem for teacher educators: They must increase preservice teachers' multicultural education skills (Castro 2010). Teachers sometimes mistake their students' conduct as a lack of discipline because they are unaware of the relationship between that behavior and the cultural background of the students (Magogwe and Ketsitlile 2015). Teachers' misconception of their students' conduct might stem from a lack of experience in training students from diverse backgrounds; it is the students who suffer to enrich their learning in the classroom due to the lack of multicultural education. Premier and Miller (2010) declared that most preservice teachers believed that their teacher education courses did not adequately address cultural and linguistic diversity in classrooms. In recent years, a number of studies have found that preservice teachers are ill-prepared to deal with the

challenges of multicultural teaching (Magogwe and Ketsitlile 2015; Delk 2019). Hence, there is a need for research on preservice teachers' beliefs about and perceptions of multicultural teaching, and how their training has prepared them to deal with this aspect.

Omani society's appreciation of diversity is deeply rooted in its history. The late Sultan, Qaboos bin Said, reflected this appreciation of diversity, specifically in implementing equal opportunities for access to education because students from different backgrounds are essential for improving the economic and societal benefits. In this respect, teachers' beliefs about diversity have become an increasingly important element of the education system in Oman. Despite increasing diversity in the population and the workforce, and the studies conducted on this phenomenon, it appears that diversity research has had limited practical effects (Bell, Connerley, and Cocchiara 2009). For instance, integrating diversity in the Islamic education curriculum has been central to the work of Bouzenita and Al-Salimi (2020), with a special emphasis on the methods utilized to integrate diversity at various levels. Similarly, a study conducted by Al-Ani (2016) provides an insight into the management of cultural diversity in the Sultanate of Oman. The author reported that cultural diversity is considered to be a consequence of globalization, which affects all aspects of people's lives as well as all styles, types, and stages of education. The results indicated that the most common obstacles faced by school administrators are the negative impact of foreign languages on the national Arabic language and the lack of cooperation of students' parents with school administrations. These contributions offer important overviews of policies, media discourses, historic and current classroom practices, and teacher perspectives (Burner, Nodeland, and Aamaas 2018). However, there was a lack of evidence regarding effective approaches among Omani teachers in terms of preparing for diversity.

This research's fundamental premise and the discussion presented here centers on the fact that diversity and cultural attitudes and beliefs are ever present, often problematic, and profoundly crucial in shaping teaching ideas and practices. However, these ideas are often not clearly expressed and properly examined in preservice teacher education programs.

In the present study, the main focus of investigation lay in gaining a deeper understanding of preservice teachers' beliefs about diversity and how such beliefs are connected to teaching practices, which may or may not be considered to be culturally responsive to meet the diverse needs of prospective students in Omani schools. In particular, demographic differences were taken into account, along with the relationship between diversity and demographic factors—such as gender, age, and nationality—that are likely to have an impact on attitude change during involvement in a formal unit of work in preparation for diversity. We undertook a descriptive and inferential study, for which the following research questions were formulated:

- 1. Which constructs of diversity do preservice teachers rank the highest and the lowest?
- 2. How highly do preservice teachers regard classroom practices for diversity education in schools?
- 3. Is there any significant relationship between preservice teachers' beliefs and attitudes about diversity and their demographics?
- 4. Are there any significant differences in preservice teachers' beliefs and attitudes about diversity based on their demographics?
- 5. How much unique variance does each significant predictor explain in preservice teachers' diversity beliefs?

These questions were designed to explore teachers' perceptions of effective teaching of diverse students. They are significant questions that should be integrated in teacher education as a main section, especially at the present time, when students are broadly diversified and many of them are in critical need of some radically different interventions to promote their educational opportunities and heighten their achievements (Gay 2010).

## **Literature Review**

Diversity is an important concern at all levels of learning. Diversity in education is increasingly viewed—if not in schools, at least at a national policy level—as a social benefit that reflects the broad constitutional principles of democracy, inclusiveness, and equality (Reygan and Steyn 2017). Due to a number of socioeconomic shifts, K12 classrooms around the world are becoming more diverse, and it is expected that such diversity will continue to increase (Cardona and Tichà 2018). Hence, questions of multiculturalism and cultural diversity give rise to lively and important debates in many countries and in many spheres of life, reflecting different interpretations of multiculturalism that has revolutionized the way nation-states and group identities are defined (Coronel and Gómez-Hurtado 2015).

Diversity education is garnering increasing attention in global forums and is now part of international conversations on how best to prepare teachers (Gambhir 2015). In this regard, preparing teachers for diversity and inclusion is currently a global concern (Cardona and Tichà 2018). According to Reygan and Steyn (2017), preservice teachers are encouraged to consider biases and cultural differences while interacting with individuals from other countries, all of which might help them in their careers. Du Plessis (2019) defined effective classroom diversity as a complex area requiring awareness and sensitivity from teachers in terms of noticing and respecting student differences. This definition entails that students should be recognized for their identified diversities, including "racial, ethnic, social, economic, cognitive, cultural and linguistic diversities... and different learning styles" (137). The enrollment of international students in a university can also create a diverse learning environment and, in turn, creates an intersection of culture in a university ecosystem (Rahman and Alwi 2018).

Both the range and types of diversity have increased in recent decades, and there has been much discussion among scholars regarding the various challenges around diversity in education (Burner, Nodeland, and Aamaas 2018). Nowadays, there exist a range of approaches that focus on fostering positive attitudes toward diversity and challenging negative attitudes (Bierema 2010). The need to address issues of diversity in education has become more important than ever in light of the increased globalization of education and global mobility (Burner, Nodeland, and Aamaas 2018). Diversity is a nuanced and complex view of social identities that can have positive or negative connotations. According to Gambhir (2015), diversity as a human reality is influenced by cultural context; socially constructed identities, ideas, and beliefs; and power differentials.

If preservice teachers have an awareness about diversity in schools, this can help them to identify their personal attitudes toward different racial, ethnic, language, and cultural groups and become familiar with the diverse perspectives that exist within different ethnic and cultural communities (Gay 2010). Teachers' expectations for students' academic and personal development, as well as their behaviors, planning, and evaluation, are all influenced by their beliefs about and knowledge of culture and diversity (Russell and Russell 2014). This process of change should start with teachers' professional preparation, in the exposure to critical investigation of their attitudes and beliefs regarding cultural diversity in general and within the context of schooling (Gay 2010). Although diversity education in preservice teacher education programs has been based on the need to develop culturally responsive teachers, most teacher education programs only provide a single course on diversity education (Wasonga 2005). However, education systems depend on qualified and competent teachers to keep up with constantly developing and changing conditions (Gursoy 2016). This is particularly the case in the Omani education system, because issues of diversity in existing schools often arise in such areas as gender, language, and background. Bodur (2012) found that preservice teachers who took a cultural diversity course experienced more positive attitudes toward teaching diverse students than preservice teachers who did not take the course. This highlights the importance of providing all preservice teachers with the skills necessary for success in an increasingly diverse education system in the Sultanate of Oman.

Oman is located in the extreme southeastern corner of the Arabian Peninsula and has a population of 4,432,380, according to recent figures from the National Center for Statistics and Information (NCSI 2017). Although most Omanis are Muslim, some hold different religious beliefs, and in addition to Arabic, many Omanis have acquired languages such as English, Swahili, Balochi, Persian, Urdu, and Guajarati (Al Musawi 2018). Omanis form about 55 percent of the total population, while expatriates make up around 45 percent, most coming from India, Pakistan, or Bangladesh (Al-Siyabi 2019). In this respect, the Sultanate of Oman is a culturally and ethnically diverse country due to its history and geographical situation and is regarded as a multicultural and multilingual country. Peterson (2004) states that although most of its population comprises Arabs, Oman exhibits a wealth of diversity in terms of ethnic groups and native languages. Hence, ethnic identity seems likely to decline as increasing merging is seen among the various communities in such areas as education, the workplace, residential neighborhoods, social functions, and the military, among others.

As with other sectors, education in Oman started to develop from 1970 onwards. At that time, only three government schools for boys provided the new type of formal education as is common today. In 1970, the Sultanate of Oman launched its series of strategic five-year plans to develop education and accommodate students of both genders (Al-Siyabi 2019). Within the context of this comprehensive development, one of the Sultan's first priorities was to address the illiteracy problem, believing that education—even if it happens "under the shade of a tree"—is the most effective weapon against ignorance. Sultan Qaboos's aim has been to generate educated and competent Omanis who are capable of undertaking their duties professionally (Alwahaibi 2017). Hence, educational opportunities for girls and for students from diverse backgrounds have increased rapidly (Al-Siyabi 2019). In this way, Oman's growing focus on global education has resulted in the development of a culturally diverse student population. However, as public and private educational institutions in Oman enroll students from different nationalities, issues around diversity in education occur, which can impede the learning process in various subjects. For this reason, it is becoming increasingly necessary for preservice teachers to be trained in matters of diversity in education and for their perceptions about difference to be positively affected (Gürsoy and Akyniyazov 2016).

With the growing demand for teacher education programs that effectively prepare both educators and learners to deal intelligently with issues of diversity (Reygan and Steyn 2017), Omani higher education institutions (HEIs) have given due regard to diversity, specifically to aspects related to inclusion and students with special needs. The Sultanate has forty four private and public colleges and universities. Among these is the Sultan Qaboos University (SQU), which was the first public university, founded in 1986. SQU received its first student intake in 1986 and has endeavored to establish itself as one of the Sultanate's academic and scientific pioneers (Demiray 2010). SQU has become an established center of knowledge and expertise in areas relating to Omani culture and national development, as well as in a wide range of academic disciplines, and has developed an ambitious long-term strategic plan to take the university to 2040 in line with the country's overall development plans.

The concept of diversity in the College of Education (COE) at SQU (as the main teacher program provider in the Sultanate) is promoted as part of the daily practice of teaching and learning in terms of respecting individual differences among students and providing them with equal educational opportunities. In this context, diversity means "individual disparities in gender, age, nationality, language, disability, socio-economic level and geographic area cause natural and obtained differences among members of the education community" (COE 2017, 39). This discrepancy in demographics has highlighted the issue of how future teachers in Oman should be trained to educate students from diverse backgrounds in the classroom to be successful. Hence, the college strives to align its various teacher preparation programs with the

MOE's efforts to design and implement new curricular materials on the values of diversity and multiculturalism. It underlines that its professional education programs are dedicated to preparing teachers and other educational professionals who cherish diversity as a source of enrichment for the education community.

## Methodology

The random probabilistic sample consisted of 319 preservice teachers from the College of Education at Sultan Qaboos University (SQU), Oman. All of these preservice teachers were invited to participate in the research. Females constituted 61.13 percent of the participants and males 38.87 percent. In terms of ethnic origin, 77.74 percent of the respondents were from Oman, 8.46 percent from Tanzania, and 5.95 percent from India. The data collected in the research was analyzed using quantitative techniques. The method needed to be appropriate for our research objectives and to enable us to elicit a form of data suitable for our research questions to be addressed (Gursoy 2016).

In collecting necessary data for the research, a survey with two distinct parts was used. The first part included the variable demographics of gender, age, and nationality. The second relied on the beliefs and practices toward diversity that were based on the original CAEP (Council for the Accreditation of Educator Preparation) set of standards. The CAEP requires that teacher preparation programs involve systematic self-study; multiple measures are used to document their ability to produce teachers who are capable of educating diverse student populations.

The survey questionnaire, created using Google Forms, was sent by email to all preservice teachers in the research population. The survey questionnaire comprised fifteen items that required respondents to provide their answers according to a scale (1 = to a large extent, 2 = to a medium extent, and 3 = to a small extent). Such aspects need to be taken into consideration when addressing diversity and improving quality within educational centers. Schulte et al. (2004) reported an acceptable degree of internal consistency reliability across scores to be > .84. To examine the questionnaire's internal consistency, the reliability estimation coefficient Cronbach's alpha was derived. The reliability coefficient value observed for diversity was sufficiently high (.8613), allowing the inferences and conclusions obtained in this study to be validated. The participating preservice teachers were all volunteers and were assured that the data provided by them would be kept confidential. Following the collection of completed instruments, the coding, ordering, and computer recoding of the responses in the database were carried out for their subsequent statistical treatment using the SPSS v. 23 statistical package.

## Results

To analyze the data, we first conducted exploratory analysis, as presented in the frequencies tables. Table 1 presents the total eigenvalue for each component after application of the principal components procedure. The first six factors with an eigenvalue higher than 1 are the factors selected as principal components (Figure 1).

Table 1. Total	Variances Explained	(Extraction Method:	Principal Co	mnonent Analysis)
Table 1. I blai	variances Explained	LAHACHOH MCHIOA.	I I IIICIDAI CO	

		Initial Eigenvo	alues	Extraction Sums of Squared Loadings			
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	
1	2.434	16.225	16.225	2.434	16.225	16.225	
2	1.957	13.046	29.271	1.957	13.046	29.271	
3	1.331	8.875	38.146	1.331	8.875	38.146	
4	1.142	7.610	45.757				
5	1.110	7.400	53.156				
6	1.025	6.831	59.987				
7	.909	6.058	66.045				
8	.811	5.405	71.451				
9	.753	5.019	76.470				
10	.734	4.893	81.363				
11	.648	4.319	85.682				
12	.623	4.155	89.837				
13	.568	3.789	93.626				
14	.485	3.235	96.861				
15	.471	3.139	100.000				



Figure 1: The Screen Plot for the Component Principal Factors Based on the Eigenvalue Representation

Table 2 indicates the loadings (extracted values of each item under three variables) of the fifteen items on the three factors extracted. The higher the absolute value of the loading, the more the factor contributes to the variable. Three variables were extracted wherein the fifteen items were divided into three variables based on the most important items that had similar responses in component 1 and in components 2 and 3. According to Hair, Gabriel, and Patel

(2014), the factor loading estimate should be higher than .5 and, ideally, .7 or higher if the sample size is 200 or more.

Table 2: Rotated Component Matrix<sup>a</sup>

Para 1.C. And Maria	(	Compone	nt
Rotated Component Matrix	1	2	3
D15 I take into account the differences in the local dialects among the students in my teaching	.719		
D11 I diversify and modify my classroom teaching methods to deal with the diverse cultures among students	.703		
D10 I use different means of communication to take into account the diversity of learners in diverse educational environments	.686		
D14 Diversity in teaching methods works to meet the diverse learning needs of students	.642		
D12 I seek to integrate the students' different dialects into my teaching practices to ensure that all of them are involved in learning	.593		
D9 I design a number of additional activities for low-achieving students		.759	
D8 I prepare the classroom learning environment to deal with diversity among my students		.602	
D6 I vary my assessment methods to address individual differences among students		.528	
D3 I design my study plans to accommodate ordinary students and those with special needs		.518	
D7 I prepare the classroom learning environment to deal with individual differences and the diverse educational needs of students		.393	
D4 I design my study plans to accommodate ordinary students and those with disabilities/disability-related needs			.635
D1 Diversification of teaching methods affects the learning of all students			.579
D5 I diversify and modify my classroom teaching methods to deal with diversity among my students			.548
D2 I design assessment tools that help me deal with individual differences among students			.532
D13 I design a number of additional activities for students with exceptional educational needs  a Rotation converged in 7 iterations			.358

<sup>&</sup>lt;sup>a</sup> Rotation converged in 7 iterations

Extraction method: principal component analysis

Rotation method: Varimax with Kaiser normalization

## Factor 1 was composed of the following items:

- D15 I take into account the differences in the local dialects among the students in my teaching
- D11 I diversify and modify my classroom teaching methods to deal with the diverse cultures among students
- D10 I use different means of communication to take into account the diversity of learners in diverse educational environments
- D14 Diversity in teaching methods works to meet the diverse learning needs of students

■ D12 I seek to integrate the students' different dialects into my teaching practices to ensure that all of them are involved in learning

Factor 2 was composed of the following items:

- D9 I design a number of additional activities for low-achieving students
- D8 I prepare the classroom learning environment to deal with diversity among my students
- D6 I vary my assessment methods to address individual differences among students
- D3 I design my study plans to accommodate ordinary students and those with special needs
- D7 deleted as the loading factor was less than .5

Factor 3 was composed of the following items:

- D4 I design my study plans to accommodate ordinary students and those with disabilities/disability-related needs
- D1 Diversification of teaching methods affects the learning of all students
- D5 I diversify and modify my classroom teaching methods to deal with diversity among my students
- D2 I design assessment tools that help me deal with individual differences among students
- D13 deleted as the loading factor was less than .5

## Demographic Characteristics of the Respondents

As shown in Table 3, the respondents of the study were 319 preservice teachers, belonging to a diverse range of ages, genders, and nationalities, from the COE at SQU, Oman. Of the 319 respondents, the majority were female (n = 195, 61%). Since the sample consisted of undergraduates, many were within the 18 to 22 age group (n = 186, 58.3%), followed by the 23 to 26 age group (n = 119, 37.3%). In terms of nationality, 296 (92.78%) respondents were from Oman and 27 (8.46%) were from Tanzania.

Table 3: Demographic Characteristics of the Respondents

Item	Options	Frequency Frequency	Percentage
Gender	Male	124	38.87
	Female	195	61.13
Age	18–22	186	58.3
	23–26	119	37.3
	>27	14	4.3
Nationality	Oman	248	77.74
	Tanzania	27	8.46
	India	19	5.95
	Jordan	13	4.07
	Saudi Arabia	9	2.82
	Pakistan	3	.94

## Research Question 1

Which constructs of diversity do preservice teachers rank the highest and the lowest?

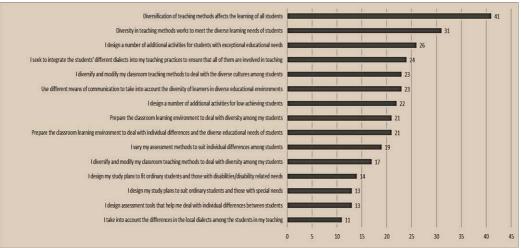


Figure 2: Preservice Teachers' Attitudes and Awareness Ranked High to Low (N = 319)

Figure 2 presents the results of the ranked items of diversity according to preservice teachers' beliefs and experiences The highest-ranked items were related to the diversification of teaching methods and the design of activities. The majority of the respondents expressed concerns in similar areas, namely, teaching methods, practices, and additional activities. However, some respondents highlighted these as being higher-level concerns, while others recorded them as lower-level concerns. It was found that the preservice teachers believed the use of diversified teaching methods to be instrumental in the success of students from diverse backgrounds. The lowest-ranked items were those concerning local dialect and assessment tools.

## Research Question 2

How highly do preservice teachers regard classroom practices for diversity education in schools?

Table 4: Mean and Standard Deviation for Items Related to Preservice Teachers' Beliefs about Diversity (n = 319)

No.	Item	Mean	SD	Level
D1	Diversification of teaching methods affects the learning of	2.59	0.56	M
	all students			
D2	I design assessment tools that help me deal with individual	2.55	0.62	M
	differences among students			
D3	I design my study plans to accommodate ordinary students	2.26	0.76	L
	and those with special needs			
D4	I design my study plans to accommodate ordinary students	2.38	0.73	M
	and those with disabilities/disability-related needs			
D5	I diversify and modify my classroom teaching methods to	2.51	0.68	M
	deal with diversity among my students			

No.	Item	Mean	SD	Level
D6	I vary my assessment methods to address individual	2.37	0.74	M
	differences among students			
D7	I prepare the classroom learning environment to deal with	2.40	0.71	M
	individual differences and the diverse educational needs of			
	students			
D8	I prepare the classroom learning environment to deal with	2.44	0.70	M
	diversity among my students			
D9	I design a number of additional activities for low-	2.26	0.80	L
	achieving students			
D10	I use different means of communication to take into	2.47	0.73	M
	account the diversity of learners in diverse educational			
	environments			
D11	I diversify and modify my classroom teaching methods to	2.36	0.81	M
	deal with the diverse cultures among students			
D12	I seek to integrate the students' different dialects into my	2.54	0.69	M
	teaching practices to ensure that all of them are involved			
	in learning			
D13	I design a number of additional activities for students with	2.18	0.77	L
	exceptional educational needs			
D14	Diversity in teaching methods works to meet the diverse	2.22	0.78	L
	learning needs of students			
D15	I take into account the differences in the local dialects	2.19	0.79	L
	among the students in my teaching			
Total		2.38	0.72	M

M: moderate; L: low

Table 4 shows the mean scores and standard deviations of each item. The higher the mean factor score, the stronger the belief. A mean between 1.00 and 2.33 indicates a low degree of belief, whereas a mean between 2.34 and 2.366 represents a moderate degree of belief and a mean between 3.67 and 5.00 denotes a high level of belief (Zaman et al. 2013). The overall mean for diversity was moderate (M = 2.38, SD = 0.72). The highest mean score obtained was for "diversification of teaching methods affects the learning of all students" (M = 2.59; SD = 0.56), followed by "I design assessment tools that help me deal with individual differences between students" (M = 2.55; SD = 0.62). "I take into account the differences in the local dialects among the students in my teaching" had the lowest mean score (M = 2.19; SD = 0.79). The findings indicate that most of the respondents agreed with the statements in each item and considered those items important in addressing the needs of their future students. The preservice teachers believed that their professional courses were preparing them to adopt a diversity-minded approach to education. It is evident that the beliefs of preservice teachers play a role in their ability to deal with diverse groups of students.

## Research Question 3

Are there any significant relationships between preservice teachers' attitudes toward diversity and the demographic variables of age, gender, and nationality?

Multiple regression was conducted to determine whether the demographic variables of age, gender, and nationality predict diversity. The regression results indicate that the overall model

with the three independent variables significantly predicts diversity;  $R^2 = .574$ , p < .001. This model accounts for 57.4 percent of the variance in diversity. After reviewing the beta weights, it was determined that age and nationality significantly contributed to this model (Table 5). Hence, the results of the regression suggest that age and nationality positively affect diversity, but there is no significant relationship between gender and diversity. This means that preservice teachers from different age/nationality categories are affected differently in terms of their diversity beliefs. This is to be expected, as students usually change their beliefs and perceptions of diversity once they are mature and become older. Moreover, preservice teachers of different nationalities come from different cultural backgrounds and perspectives and, in turn, have different beliefs regarding diversity. However, the results showed that the perception of preservice teachers about diversity not affected by gender.

Table 5: Coefficient<sup>a</sup> Estimates of the Sequential Regression Model with

Diversity as a Dependent Variable

Model	Unstand Coeffic		Standardized Coefficients	4	Cia		Correlation	ıs
Model	В	Std. Error	Beta	ι	Sig.	Zero- Order	Partial	Part
(Constant)	525	.572		933	.267			
Age	.249	.075	.276	3.140	.001	.597	.251	.198
Nationality	.289	.082	.287	3.514	.000	.512	.275	.231
Gender	038	.052	047	783	.434	.247	059	044

<sup>&</sup>lt;sup>a</sup> Dependent variable: diversity

## Research Question 4

Are there any statistically significant differences in preservice teachers' beliefs about diversity according to demographic factors (gender, age, and nationality)? (Table 6).

Table 6: Independent Samples t-Test

_		Levene's Equal Varia	ity of			t-Test <sub>s</sub>	for Equality	of Means		
		F	Sig.	T	df	Sig. (2- Tailed)	Mean Difference	Std. Error Difference	Interve	onfidence al of the erence
							33	33	Lower	Upper
	Equal Variances Assumed	14.146	.000	1.246	317	.214	.52725	.42303	30505	1.35956
	Equal Variances Not Assumed			1.337	311.785	.182	.52725	.39438	24873	1.30324

Grouping variable: gender

An independent samples t-test was conducted to compare the diversity scores for two groups (males and females). As the result for Levene's test is less than p = .05 (.000), the data violates the assumption of equal variance; the researcher should use the information in the second line, which refers to equal variances not assumed. In testing the differences by gender on diversity as a dependent variable, this study found that there is no statistically significant difference between the scores for males (M = 29.7, SD = 2.94) and those for females (M = 29.7) and those females (M = 29.7) and those females (M = 29.7) and those females (M = 29.7) and M = 29.7 are the females (M = 29.7) and M = 29.7 are the females (M = 29.7) and M = 29.7 are the females (M = 29.7) and M = 29.7 are the females (M = 29.7) and M = 29.7 are the females (M = 29.7) and M = 29.7 are the females (M = 29.7) and M = 29.7 are the females (M = 29.7) and M = 29.7 are the females (M = 29.7) and M = 29.7 are the females (M = 29.7) and M = 29.7 are the females (M = 29.7) and M = 29.7 are the females (M = 29.7) and M = 29.7 are the females (M = 29.7) and M = 29.7 are the females (M = 29.7) and M = 29.7 are the females (M

29.17, SD = 4.08; t (317) = 1.24, p = .18, two tailed). The magnitude of the differences in the means is .52, 95 percent CI: -0.248 to 1.30.

The homogeneity of variance of the three age groups was determined using Levene's test to see if the variance was the same for each of the three groups before employing the one-way analysis of variance (ANOVA). Because the observed value is 0.475, which is more than 0.05, the homogeneity of variance assumption has not been violated. This implies that we can utilize the one-way ANOVA to test research question four (Table 7).

Table 7: Test of Homogeneity of Variances

	Levene Statistic	dfl	df2	Sig.
Total Diversity	.768	2	316	.475

As there was only one dependent variable, namely, preservice teachers' beliefs about diversity, the most appropriate statistical measure was a one-way ANOVA test. The betweengroup and within-group sums of squares, degrees of freedom, and significant values have been presented in the ANOVA table (Table 8).

Table 8: One-Way Analysis of Variance (ANOVA)

Total Diversity	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	264.433	2	132.216	10.299	.000
Within Groups	4,056.671	316	12.838		
Total	4,321.103	318			

Grouping variable: age

The most interesting element of this table is the Sig. column. If the Sig. value is less than or equal to .05 (e.g., .03, .001), there is a significant difference somewhere among the mean scores on the dependent variable (diversity) for the three age groups. Participants were divided into three groups according to their age (Group 1: 18–22, Group 2: 23–26, Group 3: 27 and above). The results indicate that there was a statistically significant difference at p < .05 level among the mean scores on diversity for the three age groups: F(2, 316) = 10.64, p = .000. In this case, Table 8 does not indicate which pairs of means were significantly different from one another or which group is distinct from which other group. For this, a post-hoc multiple comparison test—Tukey's honestly significant difference (HSD) test—was carried out. Table 9 shows the statistical significance of the differences between each pair of groups, as well as the results of the post-hoc tests.

Table 9: Multiple Comparisons

Dependent Variable: Total Diversity–Tukey HSD										
		Mean			95% Confidence Interval					
(I) Age	(J) Age	Difference (I–J)	Std. Error	Sig.	Lower Bound	Upper Bound				
18–22	23–26	37838	.41997	.640	-1.3673	.6106				
	>27	4.20734*	.99316	.000	1.8686	6.5460				
23–26	18–22	.37838	.41997	.640	6106	1.3673				
	>27	4.58571*	1.01190	.000	2.2029	6.9686				
>27	18–22	-4.20734 <sup>*</sup>	.99316	.000	-6.5460	-1.8686				
* 701	23–26	-4.58571*	1.01190	.000	-6.9686	-2.2029				

<sup>\*</sup> The mean difference is significant at the .05 level

Table 9 reveals that the means are significantly different at p = .000, that is, less than the level of .05, when the three age groups are compared with one another in the test of diversity at p = .05 level. This means that the three age groups differ significantly in terms of their scores relating to beliefs about diversity.

Testing the last demographic variable regarding the differences by nationality on diversity as a dependent variable, this study found that there is significant difference at p < .05 level among the mean scores on diversity for the six nationality groups: F(5, 313) = 14.84, p = .000. Table 10 reveals that the overall Sig. value is .000, which is less than .05, indicating a statistically significant result somewhere among the groups.

Table 10: One-Way Analysis of Variance (ANOVA)

Total Diversity	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	828.101	5	165.620	14.841	.000
Within Groups	3,493.002	313	11.160		
Total	4,321.103	318			

Grouping Variable: Nationality

As before, any significant differences revealed by the ANOVA test can be referred to in the table below (Multiple Comparison). The Table 11 shows where the differences among the groups precisely take place. Again, Tukey's honestly significant difference (HSD) test was conducted for this purpose. This is referred to the Mean Difference column, as marked by the asterisks (\*). An asterisk means that the two groups being compared are significantly different from one another at the p < .05 level. The column labeled Sig. shows the actual significance value.

Table 11: Multiple Comparisons

Dependent Variable: Total Diversity—Tukey HSD							
(I) Nationality	(J) Nationality	Mean Difference (I–J)	Std. Error	Sig.	95% Confide Lower	ence Interval Upper	
					Bound	Bound	
Oman	Tanzania	-3.9871*	.6770	.000	-5.9284	-2.0459	
	India	-3.8663*	.7952	.000	-6.1465	-1.5861	
	Jordan	.6681	.9505	.982	-2.0574	3.3936	
	Saudi Arabia	3.8647*	1.1335	.010	.6142	7.1152	
	Pakistan	2.9758	1.9403	.643	-2.5880	8.5397	
Tanzania	Oman	3.9871*	.6770	.000	2.0459	5.9284	
	India	.1208	1.0003	1.000	-2.7476	2.9893	
	Jordan	4.6552*	1.1277	.001	1.4216	7.8890	
	Saudi Arabia	7.8518*	1.2858	.000	4.1649	11.5389	
	Pakistan	6.9629*	2.0330	.009	1.1333	12.7926	

India	Oman	3.8663*	.7952	.000	1.5861	6.1465
	Tanzania	1208	1.0003	1.000	-2.9893	2.7476
	Jordan	4.5344*	1.2024	.003	1.0865	7.9823
	Saudi Arabia	7.7309*	1.3517	.000	3.8548	11.6072
	Pakistan	6.8421*	2.0754	.014	.8910	12.7932
Jordan	Oman	6681	.9505	.982	-3.3936	2.0574
	Tanzania	-4.6552 <sup>*</sup>	1.1277	.001	-7.8890	-1.4216
	India	-4.5344*	1.2024	.003	-7.9823	-1.0865
	Saudi Arabia	3.1965	1.4485	.238	9572	7.3504
	Pakistan	2.3076	2.1397	.890	-3.8278	8.4432
Saudi Arabia	Oman	-3.8647*	1.1335	.010	-7.1152	6142
	Tanzania	$-7.8518^*$	1.2858	.000	-11.5389	-4.1649
	India	$-7.7309^*$	1.3517	.000	-11.6072	-3.8548
	Jordan	-3.1965	1.4485	.238	-7.3504	.9572
	Pakistan	8888	2.2270	.999	-7.2750	5.4972
Pakistan	Oman	-2.9758	1.9403	.643	-8.5397	2.5880
	Tanzania	-6.9629*	2.0330	.009	-12.7926	-1.1333
	India	-6.8421*	2.0754	.014	-12.7932	8910
	Jordan	-2.3076	2.1397	.890	-8.4432	3.8278
# TEL 1: 00	Saudi Arabia	.8888	2.2270	.999	-5.4972	7.2750

<sup>\*</sup> The mean difference is significant at the .05 level

The results presented in Table 11 show that, in Group 1, Oman is statistically significantly different from Tanzania, India, and Saudi Arabia. Similarly, in Group 2, Tanzania is significantly different from all other nationalities, with the exception of India.

## Research Question 5

How much unique variance does each significant predictor explain in preservice teachers' diversity beliefs?

To obtain the partial correlation values for the predictors in order to ascertain the unique variance explained by the significant predictors in preservice teachers' diversity beliefs, a standard regression was used. To determine the unique variance, the squared value of partial correlations was calculated.

Table 12: Coefficient<sup>a</sup> Estimates of the Model with Three Predictors and Diversity as an Outcome Variable

Model	Zero-Order	Partial Correlations	Part
(Constant)			
Age	.597	.251	.198
Nationality	.512	.275	.231
Gender	.247	059	044

Dependent variable: diversity

As shown in Table 12 the partial correlation value of age was found to be 0.198, the square of which gives a value of 0.039. This means that it explains 3.9 percent unique variance in diversity. The partial correlation value of nationality was found to be 0.231, which, when squared, gives a value of 0.053. This means it explains 5.3 percent unique variance in diversity, which is higher than age.

## **Discussion**

Researchers, theorists, and practitioners have demonstrated that preservice teachers' beliefs and classroom practices relating to diversity and systematic educational equity and excellence are inherently interwoven (Kahn, Lindstrom, and Murray 2014; Mays 2018); however, the results from the research in these areas are inconsistent (Bodur 2012). According to Unruh and McCord (2010), teachers' views on diversity have a measurable impact on educational effectiveness. Gay (2010) similarly reports that teachers' beliefs and practices may contribute to the development of a pleasant and supportive environment that caters to learners' personal needs. Thus, the way schools react to diversity depends on how instructors deal with it, which, in turn, affects students' perception and experience of their school environment (Civitillo 2019).

In response to the increasing diversity in schools and concerns over inequities in opportunities and achievement, many teacher education programs are introducing multicultural topics and coursework (Tinkler and Tinkler 2013). The purpose of preservice teacher education for inclusion preparation should clearly concentrate on improving preservice teachers' selfefficacy, assisting them in developing more positive attitudes and minimizing their anxieties through expanding their understanding and confidence in fulfilling the needs of diverse learners (Forlin et al. 2009). Despite concerted efforts to address diversity issues in training programs, teachers frequently complain that the coursework they were given did not prepare them to deal with the diversity in their classrooms (Unruh and McCord 2010). Preservice teachers may have negative attitudes toward cultural diversity, show limited self-efficacy in performing culturally responsive teaching, feel embarrassed working with minority students, and lack knowledge of pedagogical methods required in culturally diverse classrooms. According to Unruh and McCord (2010), the reason for this is that primary differences in terms of beliefs about diversity among preservice teachers may be a reflection of differences in the core dispositions of individuals and that attempts to influence attitudes toward diversity are likely to be more effective in the case of some individuals than others.

As a result, the present study was designed to measure the effect of various demographic factors on changes in preservice teachers' attitudes, beliefs, and concerns about diversity education in Oman. The challenge of engaging preservice teachers to reflect on their own personal beliefs is undoubtedly a complex one for institutions; however, it must be addressed if new graduates are to be better prepared for teaching diverse students in their classrooms effectively (Sharma et al. 2006). According to a research by Luo (2017), students respect and admire those teachers who show concern for their students, understand them, are responsible for them, are accepting of diversity, and are able to adjust their approaches to students' needs. Therefore, when teachers have a positive attitude and engage with diverse students equally in the classroom, the students' enthusiasm for learning may be stimulated and the efficiency in the learning process may be improved by these beliefs (Kustati et al. 2020).

The idea of re-evaluating preservice teachers' beliefs and practices toward understanding the values and customs of other cultures has been supported by various scholars (Haddix 2017; Mahlangu 2019). The current research has explored different aspects of diversity in order to assess whether preservice teachers are being adequately prepared to meet the needs of their diverse student population. The findings of this study show that the preservice teachers who participated are aware of the importance of diversity in Omani schools and are in agreement that diversification of teaching methods positively affects students' learning. The results of this

study support the suggestion that pedagogy should be restructured to incorporate diversity in the curriculum (Magogwe and Ketsitlile 2015). However, it is vital that we acknowledge the modes of teaching and learning that take place in the classroom. It is also important that we critically examine the various policies and practices that impede progress toward the effective handling of diversity in the classroom. This critique can only occur when teacher education programs develop an understanding of the attitudes and practices of preservice teachers about diversity.

While the subject of gender has been the focus of many studies, it has not been given the same analytical attention in diversity studies. There has been relatively little research attention directed toward examining gender differences. Furthermore, discussion and analysis of the impact of demographic variables such as gender, age, and nationality have been relatively scarce. In this context and in line with previous contributions made by Forlin et al. (2009) and Gursoy (2016), the current study examined preservice teachers' beliefs and attitudes toward diversity education according to the aforementioned demographic variables. The results indicate that their beliefs differ according to age and nationality. Contrary to the results of a previous study carried out by Ellins and Porter (2005), this study revealed that there is no significant difference between genders in terms of teachers' attitudes. Ellins and Porter (2005) reported that there were some differences between genders but only inasmuch as male preservice teachers, having started their studies with less positive attitudes, tended to develop significantly more positive ones in the course of their training. It would seem that although their need may have been greater initially, male teachers were very receptive to change. However, in the present, demographical factors are supported, from which it is considered that the system should welcome differences and regard them as a prime resource (Martínez et al. 2020). Genkova and Schreiber (2021) developed this idea by emphasizing that individual differences in attitudes toward diversity originate from individual tendencies that impact how we deal with diversityrelated uncertainty.

To successfully design and implement preservice teacher training programs that foster diversity, it is critical that such programs are sensitively examined. It was revealed that teachers must consolidate their knowledge and regularly update it in order to be able to prepare all students adequately (Martínez et al. 2020). Furthermore, preservice teacher education institutions must understand and embrace their duties more fully in order to ensure that graduates have the appropriate knowledge, skills, and attitudes—not to mention the confidence—required for furthering inclusion (Forlin et al. 2009). Kahn, Lindstrom, and Murray (2014), who focused their investigation exclusively on factors contributing to preservice teachers' beliefs about diversity, suggested that institutions need to develop programs that encourage teachers to develop their knowledge and beliefs both inside and outside of the schools. According to Gay (2010), teaching diverse students begins with embracing beliefs that recognize the inherent strength in diversity. It is crucial that teacher educators comprehend more about the beliefs and characteristics that preservice teachers have when they enter teacher training programs. This knowledge may lead to experiences that assist these preservice teachers to recognize the impact their beliefs have on their students' success and achievement. (Russell and Russell 2014). Hence, an examination of the beliefs and attitudes of preservice teachers and their responsive practices will serve to enrich the discourse around diversity in schools (Civitillo, Juang, and Schachner 2018).

## **Conclusion**

Preservice teachers' beliefs will play a role in their capacity to value diverse groups of students. Acknowledging the complexity of preservice teachers' beliefs about diversity seems to be an important aspect for teacher educators to consider when designing their training programs. Understanding the exact nature of those beliefs is paramount in order to address the needs of their future students (Schaub 2013). Mergler et al. (2017) argue that teaching culturally diverse students in the classroom needs a teaching method that is based on the philosophy of acceptance

and respect. Hence, it is critical to provide preservice teachers with chances to discuss diversity in order to be better prepared to cope with issues of gender, class, and privilege in their future classrooms. Trying to practice this, teachers can reflect on their learning through professional development and implement teaching approaches to successfully handle diversity in their classrooms (Moore 2018). Preservice teachers enter universities with their own sets of personal and professional beliefs about diversity, and despite the efforts of teacher preparation programs, many prospective teachers leave their training colleges with a lack of cultural competency and awareness (Reiter and Davis 2011). Although many studies have been conducted on diversity in education, the beliefs of preservice teachers regarding diversity are sometimes neglected in education programs that typically pay little attention to issues of diversity or reflective discourse in their coursework (Sleeter 2008). Hence, in the face of a rapidly diversifying population in Oman, teachers of all subjects and school grades are in high demand to be well prepared for teaching in culturally diverse classes. Both in-service and preservice teachers require support in developing their beliefs about the relevance of cultural diversity in education and instruction in their attempts to take action or make changes in teaching approaches in multicultural schools (Civitillo, Juang, and Schachner 2018).

To enhance educational achievement for all students, it is imperative to conduct an analysis of teachers' beliefs and practices regarding effective teaching in racially diverse classrooms. Preservice teachers should focus on providing effective teaching strategies to reduce the gaps in achievement between diverse students. The authors suggest that teacher preparation programs with a particular focus on teaching methods will help teachers to address the variety of learning styles and academic capabilities among students while also making their classroom a dynamic and motivational environment for students. However, it appears that there is a need to move toward a more in-depth treatment of diversity issues, such as language, different learning styles, difference in interests and teaching styles, in the teacher education program, as diversity training must be geared toward preparing preservice teachers to meet the demands of the diverse classroom (Acquah and Commins 2015).

Understanding how the beneficial effects of preservice teacher training on diversity attitudes link to culturally responsive behaviors and, ultimately, to student results will be an essential avenue for future study. The priorities are to create an environment conducive to learning for all students and to teach preservice teachers to become culturally competent and work effectively with students from different cultural backgrounds. However, teachers will be better prepared for teaching culturally diverse students if they are multicultural minded (Dooley 2008). Furthermore, preservice programs should target and challenge preservice teachers' beliefs to provide equal education for diverse students, in order to address the fast growth in diversity in education globally (Moore 2018).

In terms of limitations, the study relied solely on quantitative approaches to data collection. Future studies might include the gathering of qualitative data through interviews or observation. According to Hoffman and Seidel (2014), a combination of qualitative and quantitative methods may offer a more nuanced and comprehensive evaluation of different aspects of diversity beliefs over time. The fact that this study was conducted at only one university may mean that the results cannot necessarily be extrapolated to other universities. The onus is on the reader to draw their own conclusions in this regard. Issues related to diversity may vary depending on the institutions and countries in which the data is being gathered. Future research should ideally collect data from a number of institutions in order to examine the needs of preservice teachers. This study makes recommendations for future research that can help pave the way for the equitable educational opportunity for all students with a range of strategies.

The findings from this research do provide some encouragement that teacher training programs are headed in the right direction in terms of better preparing preservice teachers for a diverse classroom. However, low levels of diversity awareness in the classroom are a problem that needs to be more systematically addressed in teacher training programs. Preservice teachers

will have a greater understanding of the need of culturally responsive instruction in the classroom as a result, and it may also make their pupils more engaged in the learning process. At schools where students believe there is a deeper institutional commitment to diversity, they experience less discrimination and bias. Therefore, institutions are urged to create and support programs to enhance the cultural competency of teachers. This research will be of great interest to students, academics, and professionals alike, as well as to policymakers with a particular interest in the field of educational diversity. It is essential reading for those involved in preservice teacher education, diversity education, and education in a more general sense.

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The International Journal of Diversity in Education is one of four thematically focused journals in the family of journals that support the Diversity Research Network—its journals, book imprint, conference, and online community..

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This journal explores the dimensions of learner differences, including aspects of difference that are material (social class, geographical locale, and family), corporeal (age, race, sex and sexuality, and physical and mental capacities), and symbolic (culture or ethnicity, language, gender, affinity, and persona). In this thematic area, we explore strategies for negotiating these differences, from the microdynamics of pedagogy to the agendas of curriculum, the nuances of assessment, the organizational structures of the educational institution, and its relations with the communities it services.

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